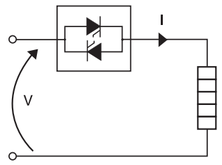
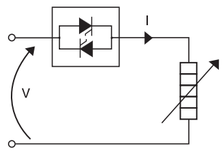
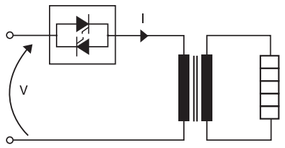
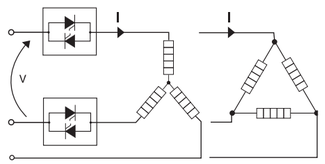
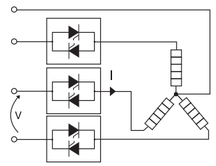
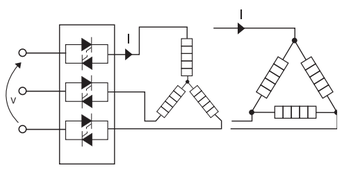
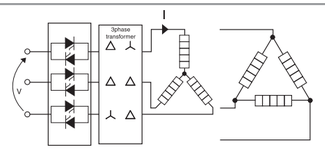
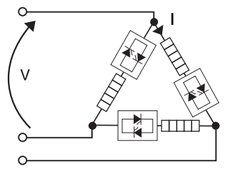
APPLICATION GUIDE FOR THYRISTOR UNIT SELECTION

APPLICATION GUIDE	LOAD TYPE	MODEL	CURRENT RANGE	N. OF UNITS	PHASE CTRL	SUGGESTED FIRING MODE FOR YOUR APPLICATIONS						OTHER FEATURES				SIZING		NOTE
						ZC	HC	SC	BF	BF Simplified	S+BF	DT	PA	CL	Control	V	I	
	Normal resistance infrared medium and long waveform	REVO SSR	It depends on heat sink	1	1	•										V	$\frac{P}{V}$	For general resistance applications with low variations in temperature and age. For low inertia loads use Single Cycle (SC) or Phase Angle (PA). For Infrared Short it's also available Half Cycle that is a very Fast Firing
		REVO S 1PH	30-800A	1	1	•				•								
		REVO C 1PH	30-2100A	1	1	•				•								
	Quartz lamp infrared short waveform	REVO C 1PH	30-2100A	1	1		•	•					•		V^2			
	Molibdenum, Tungstenum, Kanthal® super, Platinum	REVO C 1PH	30-2100A	1	1								•	•	I^2	V	$\frac{P}{V}$	These resistances change with temperature but have low variations with age. Starting current with cold elements can be 16 times nominal current (Kanthal® super). Infrared lamp short waveform can reach 8 time nominal current.
	Silicon carbide elements	REVO S 1PH	30-800A	1	1				•						V to VxI	V	$\frac{P}{V}$	These resistances change value with temperature and age and value at the end of element life is 4 times the initial value. Constant power regulation is necessary with V to VxI Transfer.
		REVO C 1PH	30-2100A	1	1								•					
	Transformers coupled with normal resistance	REVO C 1PH	30-2100A	1	1							•			VxI	V	$\frac{P}{V\cos\phi}$	Transformers and inductors have inrush current on start up. Phase Angle plus Soft Start and current limit are required. To switch the transformer ON-OFF, use DT firing that will automatically switch ON-OFF when current value is at zero.
	Transformers coupled with cold resistances (Kanthal® super)	REVO C 1PH	30-2100A	1	1								•	•	I^2	V	$\frac{P}{V\cos\phi}$	Use Phase Angle + Current Limit
	Normal Resistance	REVO S 2PH	30-800A	1	2	•				•						V	$\frac{P}{1.73V}$	Revo S - Revo C - REVO I 2PH are suitable to control resistive loads with delta or star connection without neutral.
		REVO C 2PH	30-2100A	1	2				•						VxI			
		REVO I 2PH	100-700A	1	2				•						VxI			
	Normal Resistance	REVO S 3PH	30-500A	1	3	•				•						$\frac{V}{1.73}$	$\frac{P}{1.73V}$	Three phase load with star plus neutral connection must be controlled on the three phases.
		REVO C 3PH	30-2100A	1	3				•						VxI			
		REVO I 3PH	100-500A	1	3				•						VxI			
	Silicon carbide elements	REVO C 3PH	60-2100A	1	3								•		V to VxI	V	$\frac{P}{1.73V}$	On three phase silicon carbide elements VxI feedback is suggested to have a constant power control. This is necessary to compensate resistance change with temperature and age. Resistance value at the end of element life is 4 times the original value. With Revo C use BF firing and Power Limit.
		REVO I 3PH	100-500A	1	3								•		V to VxI			
	Molibdenum, Tungstenum, Kantal® Super, Platinum, Quartz lamp infrared short waveform	REVO C 3PH	60-2100A	1	3								•	•	I^2			These resistances change with temperature but have low variations with age. Start up current with cold elements can be many times the nominal current value. In this case it is necessary to use Phase Angle + Current Limit.
		REVO I 3PH	100-500A	1	3								•	•	I^2			
	Three phase transformer	REVO C 3PH	60-2100A	1	3								•	•	I^2	V	$\frac{P}{1.73V\cos\phi}$	Three phase Multidrive and Revo C are specially designed to drive three phase transformers coupled on secondary with normal or special resistive loads.
		REVO I 3PH	100-500A	1	3								•	•	I^2			
	Three phase normal load resistance with open delta connection	REVO S 3PH	30-800A	1	3	•				•						V	$\frac{P}{3V}$	Open delta can be driven by three phase unit.
		REVO C 1PH	30-2100A	3	3								•	•	I^2			
	Cold resistance	REVO C 1PH	30-2100A	3	3								•	•	I^2			

Control Mode: V = Voltage feedback V^2 = Square voltage feedback VxI = Power feedback I = Current feedback Firing = BF Simplified 4-8-16 Cycles at 50% Power Demand with Analog Input only