# ALDONEX INC

MANUFACTURER OF QUALITY
DC AND AC POWER SUPPLIES SINCE 1967

# RIPPLE CHECK

## What Is Ripple?

Ripple is a byproduct of converting AC Electricity to DC Electricity.
Ripple = (RMS of ripple voltage/average DC output voltage).
Ripple is an AC voltage superimposed on top of the DC output voltage.

Every type of rectifier circuit will have some amount of ripple present on the output. The amount of ripple varies with the type of rectifier circuit used and output voltage level. Most common single-phase SCR power supplies use “center tapped & “bridge output circuit”. These power supplies have a ripple of 48% at full rated voltage if no additional filtering is added to the circuit. We include filtering standard on all single phase SCR & VT power supplies.

Three Phase SCR power supplies use either a bridge or 6 Phase output circuit. A ripple of 4.2% can be expected at full rated voltage. SCR type power supplies will have a greater amount of ripple present when not operated at full output voltage. Additional filtering is required to maintain low ripple throughout the operating range (typically 20-100%kW on SCR rectifiers)

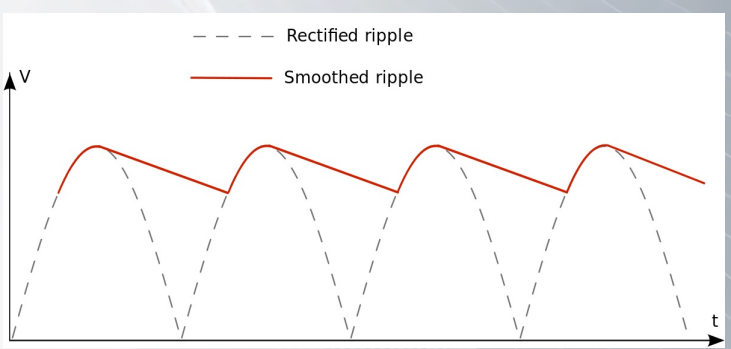
## How Do You Measure Ripple?

Required equipment:
- True RMS reading multi meter.

Steps:
1) Set rectifier to desired output voltage and current.
2) Measure and record RMS AC voltage on the output.
3) Measure and record the RMS DC voltage on the output.

Calculate % Ripple using the following formula:
- % Ripple = (RMS of ripple voltage/average DC output voltage) * 100

**Example: (1.5VAC/24VDC)*100 = 6.25%**

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