

APPLICATION

The 7796RLY was created to meet the demanding requirements of the power utility industry. With an output capability of 200 A_{pk}, the 7796RLY is powerful enough to put protection relays, fuses and other critical components through a full range of tests. The low noise floor, low distortion and minimal phase error of the 7796RLY make it the ideal amplifier for power grid modeling.

7796RLY SPECIFICATION SHEET



FEATURES

- High compliance voltage allows the 7796RLY to drive electromechanical relays directly
- Maintains phase accuracy for any load from a dead short to 0.25 ohms
- Front panel indicators for rapid assessment of amplifier status
- Designed to survive input overloads, continuous operation under demanding conditions & improper output conditions - including improper loads
- Shipped ready to operate from 200 – 220 volt 3-phase AC mains. 400 volt AC mains operation available upon request
- Installs into a standard 19-inch rack or stands alone for bench top operation
- Backed with AE Techron's application engineering, service facilities, complete technical information and a 1-year warranty

PERFORMANCE

Maximum Output Current

200 amps peak

Maximum Output Voltage

150 volts peak

Maximum Output Power

Dependent on load and frequency

Load Constraint For Maximum Output

0.5 ohms + 50 microhenries

Output Impedance

Greater than 250 ohms at 60 Hz

Output Offset Current

Less than 10.0 milliamperes DC peak

PULSE / BURST SPECIFICATIONS

	Duration	Waveform	Output Power
0.5 ohm	1 Minute	60 Hz Sine	137 A _{rms} /193 A _{pk}
		DC	181 A _{pk}
	0.5 Sec	60 Hz Sine	137 A _{rms} /193 A _{pk}
		DC	181 A _{pk}
	0.2 Sec	60 Hz Sine	139 A _{rms} /196 A _{pk}
		DC	181 A _{pk}
1.0 ohm	1 Minute	60 Hz Sine	91 A _{rms} /128 A _{pk}
		DC	134 A _{pk}
	0.5 Sec	60 Hz Sine	91 A _{rms} /128 A _{pk}
		DC	134 A _{pk}
	0.2 Sec	60 Hz Sine	91 A _{rms} /128 A _{pk}
		DC	134 A _{pk}

INPUT CHARACTERISTICS

Input

Balanced with ground: three Terminal barrier block connector 20k ohm differential

Unbalanced: BNC connector, 10k ohm single ended.

Gain

40 amps/volt (+0.2%)

Common mode rejection ratio

-58 dB minimum, 40-600Hz

Unit to Unit Phase Error

Less than 0.1° at 60Hz

Residual Noise

Less than 2.5 milliamperes peak (40Hz - 600Hz)

Input to Output Phase Delay

-0.2°

Frequency Response

DC – 10 kHz driving a 0.25 ohm load

THD+N

Less than 0.10% at 600Hz, full output power

INDICATORS AND CONTROLS

- Front panel LEDs indicate ready, standby and fault conditions in output stage
- Front panel display lists type of fault condition and gives suggested corrective action
- Front panel soft touch switch to place amplifier in run or standby mode
- Front Panel is user configurable for up to four simultaneous displays reporting one, two or all four of the following: Voltage Peak, Voltage RMS, Current Peak, and Current RMS



PHYSICAL CHARACTERISTICS

Chassis

All aluminum construction designed for stand-alone bench top or rack-mounted operation. The 7796RLY occupies 7 EIA 19-inch wide rack units

Weight

160 lbs. (72.5 kg)

AC Power

Three phase, 200 – 220 VAC, 47-60Hz, 30A. 400 VAC ($\pm 5\%$), 47-60Hz, 15A version available

Cooling

Internal fans forced air, 500 cfm

Dimensions

19 in. x 12.25 in. x 22.8 in. (48.3 cm x 31.1 cm x 57.9 cm)

SUPPORT

When you purchase an AE Techron amplifier, a full complement of technical and factory support personnel join your team. AE Techron inc. provides:

- Applications engineering for your technical questions and customized product needs
- A one year limited warranty to protect your equipment investment
- A fully equipped service center to keep your amplifier operating at original performance requirements