

APPLICATION

The 7548RLY was created to meet the demanding requirements of the power utility industry. With an output capability of 100 A_{pk}, the 7548RLY 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 7548RLY make it the ideal amplifier for power grid modeling.

7548RLY SPECIFICATION SHEET



FEATURES

- High compliance voltage allows the 7548RLY 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:

100 amps peak

Maximum Output Voltage:

180 volts peak

Maximum Output Power:

Dependent on load and frequency

Load Constraint For Maximum Output:

0.25 ohms + 50 microhenries

Output Impedance:

Greater than 250 ohms at 60 Hz

Output Offset Current:

Less than 10.0 milliamperes DC peak

Maximum Current: 70Arms, 100Apeak			
Maximum Voltage: 150Vpeak			
Total Load	Duration	Waveform	Output Power
0.7 ohm 0.5Ω + 0.2 Ω(*1)	1 Minute	60 Hz Sine	57Arms/80.6Apeak
		DC	25Apeak
	0.5 second	60 Hz Sine	66Arms/93Apeak
		DC	70Apeak
	0.2 second	60 Hz Sine	66Arms/93Apeak
		DC	70Apeak
1.2 ohm 1.0 Ω+0.2 Ω(*1)	1 Minute	60 Hz Sine	46Arms/65Apeak
		DC	47Apeak
1.0 ohm 0.8 Ω+0.2 Ω(*1)	0.5 second	60 Hz Sine	66Arms/93Apeak
		DC	70Apeak
	0.2 second	60 Hz Sine	66Arms/93Apeak
		DC	70Apeak

INPUT CHARACTERISTICS

Balanced with ground:

Three terminal barrier block connector 20k ohm differential

Unbalanced:

BNC connector, 10k ohm single ended.

Standard Gain:

Switchable 10 amps/volt (+0.2%) or 2 amps/volt (+0.2%)

Common Mode Rejection Ratio:

-58 dB minimum, 40-600Hz

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 7548RLY occupies 5 EIA 19-inch wide rack units

Weight:

110 lbs. (50 kg)

AC Power:

Three phase, 200 – 220 VAC, 47-60Hz, 20A. 400 VAC ($\pm 5\%$), 47-60Hz, 10A version available

Cooling:

Internal fans forced air, 250 cfm

Dimensions:

19 in. x 8.75 in. x 22.8 in. (48.3 cm x 22.2 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.

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

Out Accuracy:

Less than $\pm 1\%$

