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The *AE Techron 7796HC* amplifier is a DC-enabled unit optimized for high-power, continuous operation into very-low-impedance loads. A single 7796HC has an output capability of up to 200 amperes peak. If more current is needed, up to four amplifiers can be combined in parallel and operate as a single system.

The 7796HC can operate in either voltage or current mode. It provides very low noise and fast slew rates, and can safely drive a wide range of resistive, inductive loads.

Typical use includes as a power source for EMC testing in applications that require both continuous AC or DC signals and significant short term (burst) signals (DO-160, MIL 461, and MIL 704).

Performance

Frequency Response:

DC – 30 kHz +0.1 – 0.5 dB

Phase Response:

+/- 8.3 degrees (10 Hz – 10 kHz)

Unit to Unit Phase Error:

+/- 0.1 degrees at 60 Hz

Maximum Continuous Output Power:

2499 watts RMS

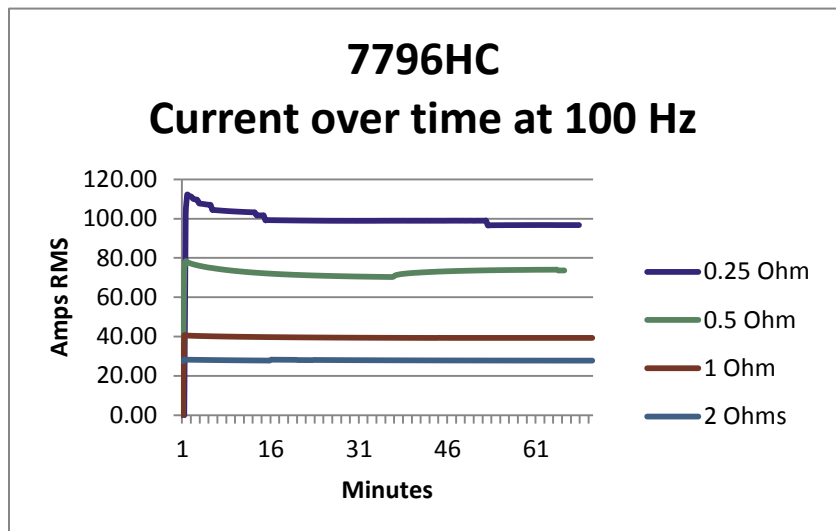
Output offset current:

Less than 10 milliamperes DC



Features

- 40 mSec pulses of up to 157 amperes peak into a 0.25-ohm load.
- System output of over 600 amperes maximum are possible with multiple, interconnected amplifiers.
- Frequency bandwidth of DC to 75 kHz at rated power, DC to 150 kHz at reduced power.
- Rugged chassis for stand-alone or rack mounted operation. No additional power supplies are required.
- Protection circuitry protects the *AE Techron 7796HC* from input overloads, improper output connection (including shorted and improper loads), over-temperature, over-current, and supply voltages that are too high or low.
- Shipped ready to operate from 208-volt (±10%) three-phase AC mains. NOTE: 400 VAC version not available.



AC Specifications

Ohms	PEAK OUTPUT						RMS OUTPUT					
	40mSec Pulse, 20% Duty Cycle		5 Minute, 100% Duty Cycle		1 Hour, 100% Duty Cycle		5 Minute, 100% Duty Cycle		1 Hour, 100% Duty Cycle			
	Volts	Amps	Volts	Amps	Volts	Amps	Volts	Amps	Volts	Amps	Watts	
2	79	39	79	39	79	39	56	28	56	28	1540	
1	56	56	55	55	55	55	39	39	39	39	1512	
0.5	53	106	52	104	50	100	37	74	35	71	2499	
0.25	40	157	38	152	35	139	27	107	25	98	2432	

Input Characteristics

Balanced with Ground:

Three terminal barrier block connector
20k ohm differential

Unbalanced:

BNC connector, 10k ohm single ended

Gain:

Voltage Mode: 20 volts/volt

Current Mode: 20 amperes/volt

Residual Noise:

DC – 30 kHz: Less than 75 microvolts

DC – 100 kHz: Less than 1 millivolt

Slew Rate:

41 volts per microsecond

Display, Control, Status

Front Panel

LED Displays indicate:

Ready, Standby and Fault conditions
in the output stage

LCD Display:

Lists type of fault condition and gives
suggested corrective action

Soft Touch Switches for:

Run (Enable), Stop, Reset

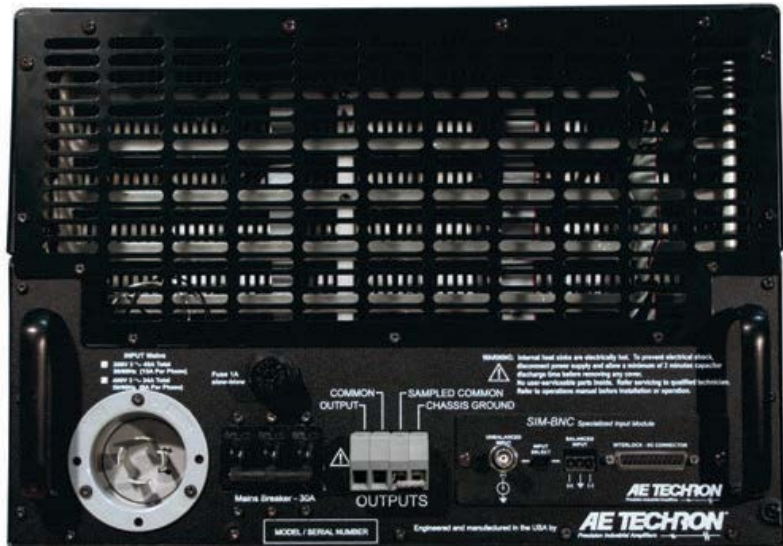
User Configurable:

LCD display can be configured 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 or rack-mounted operation
with black chassis; the amplifier
occupies five EIA 19-inch-wide rack
units



Weight:

103 lbs. (46.7 kg)

AC Power:

Three-phase, 208 VAC $\pm 10\%$, 47-60 Hz, 30A AC service.

NOTE: 400 VAC version not available.

Operating Temperature:

10°C to 50°C (50°F to 122°F), Maximum Output Power de-rated
above 30°C (86°F.)

Humidity:

70% or less, non-condensing

Cooling:

Internal fans forced air, 500 cfm

Dimensions:

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

Protection**Over/Under Voltage:**

± 10% from specified supply voltage
amplifier is forced to Standby

Over Current:

Breaker protection on both main power and low voltage supplies

Over Temperature:

Separate Output transistor, heat sink, and transformer
temperature monitoring and protection

AE Techron Sales Representative