

EAC-3S

ADVANCED 3 PHASE LINEAR AC SOURCES



POSITIVE PROBLEM SOLVING **+ =**

The EAC-3S is based on a linear platform ensuring a very clean output waveform. This 3 phase AC Source can be used in DC, single or 3 phase mode.

With sine, square, triangular and arbitrary functions the test engineer can simulate a wide range of real world conditions. Voltage and current limits can be set individually for each phase. Further imbalances can be programmed by altering the phase relationships. Each phase can be set from 0-360° when compared with the internal sinewave reference. A quick setting function enables the output frequency to be set to 50, 60 or 400Hz.

- + Fixed 50, 60 & 400Hz and Variable Frequency
- + LAN, GPIB, RS-232, RS-485 and USB Options
- + Separate V and I Setting for Each Phase
- + Single, DC or 3 Phase Operation
- + Adjustable Phase Relationships

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FURTHER DETAILS

In adjustable mode a range of 1-500Hz is standard. This can be optionally extended up to 2kHz if required. Systems are loaded with a waveform for pre-compliance testing to the volts and interrupts standard EN 61000-4-11.

A variety of computer and isolated analogue interfaces are available for remote control and system integration. The high resolution front panel displays a host of measurement functions. These include actual, average and peak values of current, along with true and apparent power, crest factor and cos phi.

The EAC-3S can also be built with a memory card slot. This enables waveforms to be easily set up on a pc using WAV files. Once transferred using an SD card the waveforms can be stored and recalled from within the AC Source. An optional $\pm 10V$ input allows a signal from an external waveform generator to be amplified.

TECHNICAL DATA

GENERAL	
Input Voltage ($P_{OUT} < 1500VA$)	230VAC, 50 / 60Hz
Input Voltage ($P_{OUT} > 1500VA$)	3 × 400VAC, 50 / 60Hz
Safety	EN 61010
Emissions	EN 61000-6-3
Immunity	EN 61000-6-1
Output Power	See table
Output Voltage Range	See table
Max. Output Current	See table
Frequency Range	DC, 1 - 500Hz (1 and 2 kHz option)
Mains Regulation	0.1%
Load Regulation	0.1%
Distortion Factor at Maximum Power	0.1%
Transient Response Time at 400Hz	Typically 30µs for 10 to 90% load change
Transient Response Time at 50Hz	Typically 240µs for 10 to 90% load change
Transient Response Time at 10Hz	Typically 1.2ms for 10 to 90% load change
AC Voltage Setting Resolution	100mV via interface and front panel
DC Voltage Setting Resolution	100mV via interface and front panel
Current Setting Resolution	10mA via interface and front panel
Phase Angle Resolution	0.1° via interface and front panel
Frequency Setting Resolution	0.1Hz via interface and front panel
Accuracy of Setting and Readback	± 0.1% of full scale value
Output Frequency Range	0 - 500Hz (option 0-1kHz and 0-2kHz)
External Oscillator Input	± 10V at DC - 1000Hz (option EXT-OSZ)
Measurement Resolution Voltage	10mV via interface and front panel
Measurement Resolution Current	1mA via interface and front panel
Measurement Resolution Power	10mW via interface and front panel
Memory Card Format	SD/MMC (slot on front panel)
Isolated Analogue Interface	Option /ATI-5 (0-5V), ATI-10 (0-10V)
Computer Interfaces	Options /RS232 /RS485 /USB /CAN
Computer Interfaces	Options /Ethernet(LAN) /IEEE488.2 (GPIB)
Operating Temperature Range	0 to +40°C
Storage Temperature Range	-40 to +85°C
Cooling	Forced air

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SELECTION TABLE

Part Number	Max Power	Output Voltage AC Mode	Output Voltage DC Mode	Output Current	Dimensions [W x H x D]
EAC-3S 250	3 x 250VA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 3A	3 x 19" x 4U x 435mm
EAC-3S 500	3 x 500VA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 6A	3 x 19" x 4U x 435mm
EAC-3S 1000	3 x 1kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 10A	3 x 19" x 6U x 435mm
EAC-3S 2000	3 x 2kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 15A	3 x 19" x 6U x 435mm
EAC-3S 3000	3 x 3kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 20A	3 x 19" x 10U x 435mm
EAC-3S 4000	3 x 4kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 30A	3 x 19" x 16U x 600mm*
EAC-3S 5000	3 x 5kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 35A	3 x 19" x 16U x 600mm*
EAC-3S 6000	3 x 6kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 40A	3 x 19" x 16U x 600mm*
EAC-3S 7000	3 x 7kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 50A	3 x 19" x 16U x 800mm*
EAC-3S 8000	3 x 8kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 60A	3 x 19" x 20U x 800mm*
EAC-3S 9000	3 x 9kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 70A	3 x 19" x 25U x 800mm*
EAC-3S 10000	3 x 10kVA	3 x 0 - 300 Vrms	0 - 425Vdc	3 x 0 - 80A	3 x 19" x 25U x 800mm*

*Delivered fitted in a cabinet

Different output ranges and application/user specific options are possible. Please contact ETPS Ltd to discuss your requirements.



OPTIONS

CODE	DESCRIPTION
/F1000	Increased output frequency range 1 - 1000Hz
/F2000	Increased output frequency range 1 - 2000Hz
/EXT OSZ	External oscillator input. Accepts signal range of $\pm 20V$, $\pm 360^\circ$ at DC - 1000Hz
/SD	Integrated SD Card memory reader
/ATE	No front panel control or display
/ATI-5	Isolated 0-5V analogue interface for all control and measurement functions
/ATI-10	Isolated 0-10V analogue interface for all control and measurement functions
/LT	IEEE 488.2 interface
/LTRS232	RS-232 interface
/LTRS485	RS-485 interface
/USB	USB interface
/ETH	Ethernet interface
/V500	Extended output voltage range 500Vrms / 700Vdc [current output reduces by 40%]
/V700	Extended output voltage range 700Vrms / 990Vdc [current output reduces by 50%]

Note: Your chosen unit can be specified with any combination of computer interfaces but only one analogue interface

HIGHLIGHTED FEATURES

SD MEMORY CARD

An integrated SD card provides a convenient low cost method of recording and editing complex waveforms, using simple WAV or script files via a PC.

MODIFICATIONS

Existing platforms can be modified by ETPS's design specialists to meet unusual test needs. Voltage or current outputs can be tailored to suit your requirements.

WAVEFORM CREATION

By analysing devices under a variety of operational waveforms, potential design faults can be identified before mass production commences. Most common waveforms are preinstalled, with the ability to edit both V and I output characteristics.

INTERFACES

A variety of interfaces are available providing unrivalled flexibility for users. Each system can be configured with multiple interfaces.

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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WE ARE
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PEOPLE
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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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