made for experts

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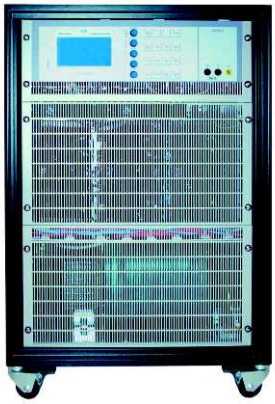
# EAC-3S

# Advanced 3 Phase Linear AC Sources

## Description

The EAC-3S is based on a linear platform ensuring a very clean output waveform. With sine, square, triangular and arbitrary functions the test engineer can simulate a wide range of real world conditions. This AC Source can be used in DC, single or 3 phase mode. 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. In adjustable mode a range of 1-500Hz is standard. This can be optionally extended up to 2kHz if required. 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-S 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 ±10V input allows a signal from an external waveform generator to be amplified.



- Fixed 50, 60 & 400Hz & Variable Frequency
- LAN, GPIB, RS232, RS485, USB Options
- Separate V & I Setting for Each Phase
- Adjustable Phase Relationships
- Single, DC or 3 Phase Operation

## Selection Table

| Part Number | Max Power | Output Voltage | Current | Dimensions (Width x Height x Depth) |
|---|---|---|---|---|
| EAC-3S 250 | 3 x 250VA | 3 x 0 - 300 Vrms | 3 x 0 - 3 A | 3 x 19" x 4U x 435mm |
| EAC-3S 500 | 3 x 500VA | 3 x 0 - 300 Vrms | 3 x 0 - 6 A | 3 x 19" x 4U x 435mm |
| EAC-3S 1000 | 3 x 1kVA | 3 x 0 - 300 Vrms | 3 x 0 - 10 A | 3 x 19" x 6U x 435mm |
| EAC-3S 2000 | 3 x 2kVA | 3 x 0 - 300 Vrms | 3 x 0 - 15 A | 3 x 19" x 6U x 435mm |
| EAC-3S 3000 | 3 x 3kVA | 3 x 0 - 300 Vrms | 3 x 0 - 20 A | 3 x 19" x 10U x 435mm |
| EAC-3S 4000 | 3 x 4kVA | 3 x 0 - 300 Vrms | 3 x 0 - 30 A | 3 x 19" x 16U x 600mm** |
| EAC-3S 5000 | 3 x 5kVA | 3 x 0 - 300 Vrms | 3 x 0 - 35 A | 3 x 19" x 16U x 600mm** |
| EAC-3S 6000 | 3 x 6kVA | 3 x 0 - 300 Vrms | 3 x 0 - 40 A | 3 x 19" x 16U x 600mm** |
| EAC-3S 7000 | 3 x 7kVA | 3 x 0 - 300 Vrms | 3 x 0 - 50 A | 3 x 19" x 16U x 600mm** |
| EAC-3S 8000 | 3 x 8kVA | 3 x 0 - 300 Vrms | 3 x 0 - 60 A | 3 x 19" x 20U x 780mm** |
| EAC-3S 9000 | 3 x 9kVA | 3 x 0 - 300 Vrms | 3 x 0 - 70 A | 3 x 19" x 20U x 780mm** |
| EAC-3S 10000 | 3 x 10kVA | 3 x 0 - 300 Vrms | 3 x 0 - 80 A | 3 x 19" x 20U x 780mm** |

**Delivered fitted in a cabinet

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

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# EAC-3S

# Advanced 3 Phase Linear AC Sources

## Options Table

| 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 ± 10V, ± 360° at DC - 1000Hz |
| /SD | SD Card |
| /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 with listener and talker functions |
| /LTRS232 | RS232 Interface with listener and talker functions |
| /LTRS485 | RS485 Interface with listener and talker functions |
| /CAN | CAN Interface with listener and talker functions |
| /USB | USB Interface with listener and talker functions |
| /ETH | Ethernet interface with listener and talker functions over a LAN |
| /V500 | Extended output voltage range 500Vrms / 700Vdc (Current output reduces by 40%) |
| /V700 | Extended output voltage range 700Vrms / 1000Vdc (Current output reduces by 50%) |

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

## Technical Data

| | |
|---|---|
| Input voltage ($P_{OUT}$<1500VA) | 230VAC, 50/60Hz |
| Input voltage ($P_{OUT}$>1500VA) | 3 x 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 |