AC Sources

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EAC-1P

Single Phase Linear AC Source

Description

This range of adjustable AC Power Sources are based on a Linear platform. A very clean sine wave is produced with a distortion factor of less than 0.3% at mains frequencies. The EAC-1P units also provide very fast response times for load step changes. The front panel is clearly laid out with separate displays for voltage, current, frequency and power. Quick and precise setting of 50, 60 & 400Hz is offered via push button. The adjustable frequency of up to 500Hz can be optionally extended to 2kHz. The source is fully programmable through a variety of computer interfaces. An isolated analogue interface for all control and measurement functions can also be specified. The unit can be built with a constant current mode allowing the current limit to be set. Besides AC mode the unit can also be built to operate as a DC Source. A DC offset can be added to the AC to recreate ripple effects.

- Adjustable Phase Angle at Voltage On
- CV And CC Mode Operation
- High Visibility Front Panel
- External Oscillator Input
- DC Mode Operation

Selection Table

Part Number	Max Power	Output Voltage	Output Current	Dimensions (Width x Height x Depth)
EAC-1P 250	250VA	0 - 270 Vrms	3 A	19" x 4U x 435mm
EAC-1P 500	500VA	0 - 270 Vrms	6 A	19" x 4U x 435mm
EAC-1P 1000	1kVA	0 - 270 Vrms	10 A	19" x 6U x 435mm
EAC-1P 2000	2kVA	0 - 270 Vrms	15 A	19" x 6U x 435mm
EAC-1P 3000	3kVA	0 - 270 Vrms	20 A	19" x 10U x 435mm
EAC-1P 4000	4kVA	0 - 270 Vrms	30 A	19" x 16U x 600mm*
EAC-1P 5000	5kVA	0 - 270 Vrms	35 A	19" x 16U x 600mm*
EAC-1P 6000	6kVA	0 - 270 Vrms	40 A	19" x 16U x 600mm*
EAC-1P 7000	7kVA	0 - 270 Vrms	50 A	19" x 16U x 600mm*
EAC-1P 8000	8kVA	0 - 270 Vrms	60 A	19" x 20U x 780mm*
EAC-1P 9000	9kVA	0 - 270 Vrms	70 A	19" x 20U x 780mm*
EAC-1P 10000	10kVA	0 - 270 Vrms	80 A	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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Options Table

Code	Description
/CC	Additional constant current mode allowing current limit setting
/DC	DC mode operation
/F1	Increased frequency range 1 - 1000Hz
/F2	Increased frequency range 1 - 2000Hz
/ATE	No front panel control or display. Analogue Interface provided as standard
/AI-5	0-5V Analogue Interface for all control and measurement functions
/AI-10	0-10V Analogue Interface for all control and measurement functions
/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
/LT+LTRS232	IEEE 488.2 and RS232 Interfaces with listener and talker functionality
/LT+LTRS485	IEEE 488.2 and RS485 Interfaces with listener and talker functionality
/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
/V300	Extended output voltage range 300Vrms
/V500	Extended output voltage range 500Vrms (Current output reduces by 40%)
/V700	Extended output voltage range 700Vrms (Current output reduces by 50%)
/AR	Power output at rear panel
/SYNC	Mains synchronization
/CF2	Peak current 2 x Nom. (Cresfactor 2)
/CF3	Peak current 3 x Nom. (Cresfactor 3)
/CF4	Peak current 4 x Nom. (Cresfactor 4)
/EXT OSZ	External oscillator input ($20V_{P-P}$)

Technical Data

Input voltage	230VAC or 2 x 400VAC or 3 x 400VAC, 50/60Hz
Safety	EN 61010
Emissions	EN 61000-6-3
Immunity	EN 61000-6-1
Output power	see table
Power derating cos <±0.7	14%/ delta 0.1 cos phi
O/p voltage range	see table
Max. o/p current AC	see table
Frequency range	1-500Hz (1 and 2 kHz option)
Frequency range (with DC option)	DC-500Hz (1 and 2 kHz option)
Mains regulation	0.1%
Load regulation	0.2%
Transient response time	typically <10ms for 10 to 90% load change
Distortion factor	0.3% at 50Hz
Program accuracy AC	0.1%
Program accuracy DC	0.1%
Program accuracy current	0.2%
Program accuracy phase angle	0.5° (0-360°)
Program accuracy frequency	0.1%
Ext. oscillator input	20Vpp / DC - 1000Hz
Measurement rms voltage	0.2%
Measurement rms current	0.2%
Measurement power	0.2%
Analogue interface	Option /AI-5 (0-5V), /AI-10 (0-10V)
Isolated analogue interface	Option /ATI-5 (0-5V), ATI-10 (0-10V)
RS 232/RS 485 Interface	12 bit
IEEE488.2/GPIB Interface	12 bit
USB interface	12 bit
CAN interface	12 bit
Cooling	Internal fan
Operating temperature range	0 to 40°C
Storage temperature range	-40 to +85°C

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EAC-3P

3 Phase Linear AC Source

Description

Starting at 750VA the EAC-3P is available up to 30kVA as standard. On request 3 phase systems will be built to suit your particular voltage and power outputs. The Linear design ensures low ripple and noise while providing the fastest response times. Voltage and current limits are automatically adjusted from the master unit. Options are available to independently set voltage, current limit and relative angles should separate phase balances be required. Along with adjustable frequency push buttons provide quick and precise settings for common output frequencies. An external oscillator input enables a signal to be amplified from a waveform generator. A choice of analogue and Computer interfaces are offered making the EAC-3P ideal for integration into automatic test systems.

- Constant voltage/constant current operation
- Fixed and adjustable frequencies
- Waveform generator input
- Straightforward operation
- Adjustable phase angle
- Linear Platform

Selection Table

Part Number	Max Power	Output Voltage	Current	Dimensions (Width x Height x Depth)
EAC-3P 250	3 x 250VA	3 x 0 - 270 Vrms	3 x 3 A	3 x 19" x 4U x 435mm
EAC-3P 500	3 x 500VA	3 x 0 - 270 Vrms	3 x 6 A	3 x 19" x 4U x 435mm
EAC-3P 1000	3 x 1kVA	3 x 0 - 270 Vrms	3 x 10 A	3 x 19" x 6U x 435mm
EAC-3P 2000	3 x 2kVA	3 x 0 - 270 Vrms	3 x 15 A	3 x 19" x 6U x 435mm
EAC-3P 3000	3 x 3kVA	3 x 0 - 270 Vrms	3 x 20 A	3 x 19" x 10U x 435mm
EAC-3P 4000	3 x 4kVA	3 x 0 - 270 Vrms	3 x 30 A	3 x 19" x 16U x 600mm**
EAC-3P 5000	3 x 5kVA	3 x 0 - 270 Vrms	3 x 35 A	3 x 19" x 16U x 600mm**
EAC-3P 6000	3 x 6kVA	3 x 0 - 270 Vrms	3 x 40 A	3 x 19" x 16U x 600mm**
EAC-3P 7000	3 x 7kVA	3 x 0 - 270 Vrms	3 x 50 A	3 x 19" x 16U x 600mm**
EAC-3P 8000	3 x 8kVA	3 x 0 - 270 Vrms	3 x 60 A	3 x 19" x 20U x 780mm**
EAC-3P 9000	3 x 9kVA	3 x 0 - 270 Vrms	3 x 70 A	3 x 19" x 20U x 780mm**
EAC-3P 10000	3 x 10kVA	3 x 0 - 270 Vrms	3 x 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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Options Table

Code	Description
/CC	Additional constant current mode allowing current limit setting
/DC	DC mode operation
/V3	Separate voltage adjustment of phases 1 to 3
/C3	Separate current adjustment of phases 1 to 3
/PHS	Programmable angle of phases 2 and 3 in relation to phase 1
/F1	Increased frequency range 1 - 1000Hz
/F2	Increased frequency range 1 - 2000Hz
/ATE	No front panel control or display. Analogue Interface provided as standard
/AI-5	0-5V Analogue Interface for all control and measurement functions
/AI-10	0-10V Analogue Interface for all control and measurement functions
/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
/LT+LTRS232	IEEE 488.2 and RS232 Interfaces with listener and talker functionality
/LT+LTRS485	IEEE 488.2 and RS485 Interfaces with listener and talker functionality
/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
/V300	Extended output voltage range 300Vrms
/V500	Extended output voltage range 500Vrms (Current output reduces by 40%)
/V700	Extended output voltage range 700Vrms (Current output reduces by 50%)
/AR	Power output at rear panel
/CF2	Peak current 2 x Nom. (Cresfactor 2)
/CF3	Peak current 3 x Nom. (Cresfactor 3)
/CF4	Peak current 4 x Nom. (Cresfactor 4)
/EXT OSZ	External oscillator input ($20V_{P-P}$)

Technical Data

Input voltage	230VAC or 2 x 400VAC or 3 x 400VAC, 50/60Hz
Safety	EN 61010
Emissions	EN 61000-6-3
Immunity	EN 61000-6-1
Output power	see table
Power derating cos <±0.7	14%/ delta 0.1 cos phi
O/p voltage range	see table
Max. o/p current AC	see table
Frequency range	1-500Hz (1 and 2 kHz option)
Frequency range (with DC option)	DC-500Hz (1 and 2 kHz option)
Mains regulation	0.1%
Load regulation	0.2%
Transient response time	typically <10ms for 10 to 90% load change
Distortion factor	0.3% at 50Hz
Program accuracy AC	0.1%
Program accuracy DC	0.1%
Program accuracy current	0.2%
Program accuracy phase angle	0.5° (0-360°)
Program accuracy frequency	0.1%
Ext. oscillator input	20Vpp / DC - 1000Hz
Measurement rms voltage	0.2%
Measurement rms current	0.2%
Measurement power	0.2%
Analogue interface	Option /AI-5 (0-5V), /AI-10 (0-10V)
Isolated analogue interface	Option /ATI-5 (0-5V), ATI-10 (0-10V)
RS 232/RS 485 Interface	12 bit
IEEE488.2/GPIB Interface	12 bit
USB interface	12 bit
CAN interface	12 bit
Cooling	Internal fan
Operating temperature range	0 to 40°C
Storage temperature range	-40 to +85°C

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EAC-S

Advanced Programmable AC Sources

Description

The EAC-S is designed for exacting users who demand a high quality adjustable waveform. The distortion level at full power is a mere 0.1%. Sine, triangular and square waves at up to 500Hz (2kHz option) can be selected. Operation at low frequencies all the way down to dc level is provided as standard. A DC offset can be combined with the AC voltage ensuring that almost any waveform can be created. The user can also preset the starting phase angle when the output is activated. A variety of common waveforms are also available for checking units against various standards such as EN61000-6-1. Users can also create their own waveforms and load them into the unit via an SD card. Another useful function is the external oscillator input. This enables complex waves to be set up on a signal generator and essentially amplified through the EAC-S. A host of measurement functions are available including true, apparent and reactive power along with average, effective and peak values for both voltage and current. The power factor and crest factor values are also displayed. For remote control and automated test systems isolated analogue and computer interfaces are available. Higher voltage levels up to 700Vrms/1000Vdc can be specified from the options table. For non standard outputs or application specific modifications please contact our office.

- CV & CC Modes for voltage and current limiting
- Memory function for loading user waveforms
- Measurements include CF, PF, I_{PEAK}, & I_{EFF}
- Very Low distortion levels of 0.1%
- DC Mode Operation

Selection Table

Part Number	Max Power	Output Voltage AC Mode/DC Mode	Output Current	Dimensions (Width x Height x Depth)
EAC-S 250	250VA	0 - 300 Vrms / 0 - 425Vdc	0 - 3 A	19" x 4U x 435mm
EAC-S 500	500VA	0 - 300 Vrms / 0 - 425Vdc	0 - 6 A	19" x 4U x 435mm
EAC-S 1000	1kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 10 A	19" x 6U x 435mm
EAC-S 2000	2kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 15 A	19" x 6U x 435mm
EAC-S 3000	3kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 20 A	19" x 10U x 435mm
EAC-S 4000	4kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 30 A	19" x 16U x 600mm*
EAC-S 5000	5kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 35 A	19" x 16U x 600mm*
EAC-S 6000	6kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 40 A	19" x 16U x 600mm*
EAC-S 7000	7kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 50 A	19" x 16U x 600mm*
EAC-S 8000	8kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 60 A	19" x 20U x 780mm*
EAC-S 9000	9kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 70 A	19" x 20U x 780mm*
EAC-S 10000	10kVA	0 - 300 Vrms / 0 - 425Vdc	0 - 80 A	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-S

Advanced Programmable 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	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 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
/LAN	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

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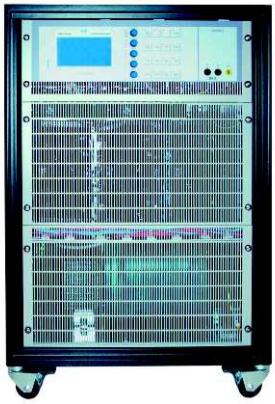
EAC-3S

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

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EAC-MT-SL

Benchtop Motor Driven AC Source

Description

The EAC-MT-SL is a series of AC Power Sources conveniently packaged in a desktop case. These units are a cost effective method of providing an adjustable AC output in applications where the frequency does not need to be varied. The output voltage is set quickly and accurately via a motor regulated transformer. The output is galvanically isolated from the input. The high visibility LED's clearly show the voltage and current being taken from the source. A variety of analogue and computer interfaces are available should remote control be required. If the unit is required to be integrated into a cabinet then it can be optionally built as a 6U cassette. The power supply can also be provided with a leakage current measurement function. This gives the user the ability to check the leakage current up to 20mA between the output of the AC Source and the case or line earth of the unit under test. If the standard output range is not wide enough please contact ETPS for high voltage versions.

- Motor Driven Source with a Setting Time of 100V/sec
- Isolated or Standard Analogue Interfaces
- Leakage Current Measurement
- Computer Interface Options
- Galvanic Isolation

Selection Table

Part Number	Max Power	Output Voltage	Output Current	Dimensions (Width x Height x Depth)
EAC-MT-SL 500	500VA	0 - 270 Vrms	1.87 A	112 x 222 x 360mm
EAC-MT-SL 1000	1000VA	0 - 270 Vrms	3.7 A	224 x 222 x 360mm

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

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EAC-MT-SL

Benchtop Motor Driven AC Source

Options Table

Code	Description
/ATE	Without display and manual operation
/LT	IEEE488.2 interface with both listener and talker functions (12 bit resolution)
/LTRS232	RS 232, interface, listener and talker
/LTRS485	RS 485 interface, listener and talker
/LT+LTRS232	IEEE 488.2 & RS 232 listener and talker
/LT+LTRS485	IEEE 488.2 & RS 485 listener and talker
/AI-5	0 - 5 VDC Analogue interface for control and measurement
/AI-10	0 - 10 VDC Analogue interface for control and measurement
/ATI-5	Isolated 0 - 5 VDC analogue interface for control and measurement
/ATI-10	Isolated 0 - 10 VDC analogue interface for control and measurement
/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
/LC	Leakage current measurement 0-20mA
/TG	Carrying handle
/10POT	Potentiometer with scale
/AF	Adjustable Foot
/ECT	19" x 6 U Unit frame for up to 4 desktop units
/ECS6	19" x 6 U rack for up to 4 euro cassettes
/EP21	6U x 21HP grey blanking plate
/EP42	6U x 42HP grey blanking plate
/6HE	Unit built into a 21HP x 6U eurocassette
/R05	0.5% line & load regulation

Technical Data

Input voltage	230 VAC ±10%, 50/60Hz
Isolation	3750 VAC
Digital display for voltage a. current	3½ digit
Regulation	<2.0% (option /R05 for <0.5%)
Response time	<100 V/sec
Protections	Overtemperature, short circuit
Display	3.5 digits for voltage & current
Interface analogue	Option /AI-5 (0-5V) or /AI-10 (10V)
Interface analogue isolated	Option /ATI-5 (0-5V) or /ATI-10 (10V)
Interface RS232/RS485/USB	12 Bit (Option /RS232)
Interface CAN	12 Bit (Option /RS485)
Interface IEEE 488.2	12 Bit (Option /LT)
Operating temperature	0-50 °C
Operating humidity	0-90% (non condensing)
Power derating 50-70 °C	-2%/ °C
Cooling	forced air front to back
Storage temperature	-45 to + 85 °C
Storage humidity	0-95% (non condensing)

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EAC-MT-1P Single Phase Motor Driven AC Source

Description

The EAC-MT series of rack mounting AC Sources are based on a motor driven transformer with galvanic isolation. The output voltage is programmable with a speed of 100V/sec. The regulation and adjustment accuracy is 1.5%. This figure can be optionally improved to 0.5% if required. A number of computer interfaces are available. These include IEEE488.2, RS232, RS485 & USB. For users looking for analogue control a choice of either standard or isolated versions are available at 0-5Vdc or 0-10Vdc. Where the output frequency is required to be the same as the input frequency the EAC-MT is a cost effective and technically excellent solution. The units can be modified to meet particular applications.

- Standard or isolated analogue interfaces
- Choice of computer interfaces
- Simple front panel operation
- Fast setting speed
- Good regulation

Selection Table

Part Number	Power	Output Voltage	Current	Dimensions (Width x Height x Depth)
EAC-MT 2705	1350 VA	0 - 270 VAC	5 A	19" x 4U x 440mm
EAC-MT 2706	1620 VA	0 - 270 VAC	6 A	19" x 6U x 440mm
EAC-MT 2708	2160 VA	0 - 270 VAC	8 A	19" x 6U x 440mm
EAC-MT 27010	2700 VA	0 - 270 VAC	10 A	19" x 10U x 440mm
EAC-MT 27012	3240 VA	0 - 270 VAC	12 A	19" x 10U x 440mm
EAC-MT 27014	3780 VA	0 - 270 VAC	14 A	19" x 10U x 440mm
EAC-MT 27016	4320 VA	0 - 270 VAC	16 A	19" x 10U x 440mm
EAC-MT 27018	4860 VA	0 - 270 VAC	18 A	19" x 10U x 440mm
EAC-MT 27020	5400 VA	0 - 270 VAC	20 A	19" x 10U x 440mm
EAC-MT 27022	5940 VA	0 - 270 VAC	22 A	19" x 10U x 440mm
EAC-MT 27025	6750 VA	0 - 270 VAC	25 A	19" x 10U x 440mm
EAC-MT 27030	8100 VA	0 - 270 VAC	30 A	19" x 12U x 600mm
EAC-MT 27035	9450 VA	0 - 270 VAC	35 A	19" x 12U x 600mm
EAC-MT 27040	10,800 VA	0 - 270 VAC	40 A	19" x 16U x 600mm
EAC-MT 27045	12,100 VA	0 - 270 VAC	45 A	19" x 16U x 600mm
EAC-MT 27050	13,500 VA	0 - 270 VAC	50 A	19" x 16U x 600mm

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

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EAC-MT-1P Single Phase Motor Driven AC Source

Options Table

Code	Description
/ATE	No front panel control or display. Analogue Interface provided as standard
/AI-5	0-5V Analogue Interface for all control and measurement functions
/AI-10	0-10V Analogue Interface for all control and measurement functions
/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
/LT+LTRS232	IEEE 488.2 and RS232 Interfaces with listener and talker functionality
/LT+LTRS485	IEEE 488.2 and RS485 Interfaces with listener and talker functionality
/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
/V300	Extended output voltage range 300Vrms
/V380	Extended output voltage range 500Vrms (Current output reduces by 40%)
/V500	Extended output voltage range 700Vrms (Current output reduces by 50%)
/H	19” Handle
/10POT	Potentiometer with scale
/H400	400Hz operation for 400Hz input supply
/R05	0.5% line & load regulation

Technical Data

Input voltage	230VAC ± 10%, 3 x 400VAC ± 10%
Input frequency	47 - 63Hz
Isolation	3750 VAC
Digital display for voltage & current	3 ½ digit
Load regulation	<1.5% (0.5% option)
Line regulation	<1.5% (0.5% option)
Response time	<100 V/sec
Protections	Over temperature, Short circuit
Display	3.5 digits for V and I
Analogue interface	Option /AI-5 (0-5V), /AI-10 (0-10V)
Isolated analogue interface	Option /ATI-5 (0-5V), ATI-10 (0-10V)
RS 232/RS 485 Interface	12 bit
IEEE488.2/GPIB Interface	12 bit
CAN interface	12 bit
USB interface	12 bit
Operating temperature	0-50°C
Operating humidity	0-90% (non condensing)
Power derating 50-70°C	-2%/°C
Cooling	Forced air front to back
Storage temperature	-45 to + 85°C
Storage humidity	0-95% (non condensing)

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EAC-MT-3P

Three Phase Motor Driven AC Source

Description

These AC Sources provide a 3 phase output. The standard range goes up to 50A per phase though higher powers are available on request. The EAC-MT-3P is based around a motor driven transformer with galvanic isolation. This approach is ideal for cost conscious users that do not require frequency adjustment or current limiting. The output voltage level is adjustable and can also be preset and released with a rise time of 100V/sec. The regulation and adjustment accuracy is 1.5% as standard which can be optionally improved to 0.5%. Integrated analogue and computer interfaces are available including GPIB, RS232, RS485, CAN, LAN & USB. All units in the range are shipped in 19" cabinets as standard. Modified versions to suit particular applications are available on request.

- ATE versions for systems integration
- Analogue & computer interfaces
- All voltage ranges possible
- High current versions
- Digital V & I display
- High setting speed

Selection Table

Part Number	Power	Output Voltage	Current	Dimensions (Width x Height x Depth)
EAC-MT-3P 2705	3 x 1350 VA	3 x 0 - 270 VAC	3 x 5 A	19" x 16U x 600mm
EAC-MT-3P 2706	3 x 1620 VA	3 x 0 - 270 VAC	3 x 6 A	19" x 16U x 600mm
EAC-MT-3P 2708	3 x 2160 VA	3 x 0 - 270 VAC	3 x 8 A	19" x 16U x 600mm
EAC-MT-3P 27010	3 x 2700 VA	3 x 0 - 270 VAC	3 x 10 A	19" x 20U x 600mm
EAC-MT-3P 27012	3 x 3240 VA	3 x 0 - 270 VAC	3 x 12 A	19" x 20U x 600mm
EAC-MT-3P 27014	3 x 3780 VA	3 x 0 - 270 VAC	3 x 14 A	19" x 20U x 600mm
EAC-MT-3P 27016	3 x 4320 VA	3 x 0 - 270 VAC	3 x 16 A	19" x 20U x 600mm
EAC-MT-3P 27018	3 x 4860 VA	3 x 0 - 270 VAC	3 x 18 A	19" x 25U x 600mm
EAC-MT-3P 27020	3 x 5400 VA	3 x 0 - 270 VAC	3 x 20 A	19" x 25U x 600mm
EAC-MT-3P 27022	3 x 5940 VA	3 x 0 - 270 VAC	3 x 22 A	19" x 25U x 600mm
EAC-MT-3P 27025	3 x 6750 VA	3 x 0 - 270 VAC	3 x 25 A	19" x 25U x 600mm
EAC-MT-3P 27030	3 x 8100 VA	3 x 0 - 270 VAC	3 x 30 A	19" x 34U x 600mm
EAC-MT-3P 27035	3 x 9450 VA	3 x 0 - 270 VAC	3 x 35 A	19" x 34U x 600mm
EAC-MT-3P 27040	3 x 10,800 VA	3 x 0 - 270 VAC	3 x 40 A	19" x 34U x 780mm
EAC-MT-3P 27045	3 x 12,100 VA	3 x 0 - 270 VAC	3 x 45 A	19" x 34U x 780mm
EAC-MT-3P 27050	3 x 13,500 VA	3 x 0 - 270 VAC	3 x 50 A	19" x 34U x 780mm

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

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EAC-MT-3P Three Phase Motor Driven AC Source

Options Table

Code	Description
/ATE	No front panel control or display. Analogue Interface provided as standard
/AI-5	0-5V Analogue Interface for all control and measurement functions
/AI-10	0-10V Analogue Interface for all control and measurement functions
/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
/LT+LTRS232	IEEE 488.2 and RS232 Interfaces with listener and talker functionality
/LT+LTRS485	IEEE 488.2 and RS485 Interfaces with listener and talker functionality
/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
/V300	Extended output voltage range 0 – 300 VAC
/V380	Extended output voltage range 0 – 380 VAC
/V500	Extended output voltage range 0 – 500 VAC
/H	19” Handles fitted
/10POT	Potentiometer with scale

Technical Data

Input voltage	3 x 400 VAC, 50/60Hz
Isolation	3750 VAC
Load regulation	<1.5% (0.5% option)
Line regulation	<1.5 % (0.5% option)
Response time	<100 V/sec
Protections	Over temperature, Short circuit
Display	3.5 digits for V and I
Analogue interface	Option /AI-5 (0-5V), /AI-10 (0-10V)
Isolated analogue interface	Option /ATI-5 (0-5V), ATI-10 (0-10V)
RS 232/RS 485 Interface	12 bit
IEEE488.2/GPIB Interface	12 bit
CAN interface	12 bit
USB interface	12 bit
Operating temperature	0-50°C
Operating humidity	0-90% (non condensing)
Power derating 50-70°C	-2%/°C
Cooling	Forced air front to back
Storage temperature	-45 to + 85°C
Storage humidity	0-95% (non condensing)

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EAC-SM-1P

Voltage & Frequency Converter

Description

This range of adjustable AC Power Sources are ideal for simple frequency conversion applications. As standard the output frequency can be switched between 50 or 60Hz. The EAC-S demonstrates a highly stable output with an accuracy of 0.001% of the set frequency value. Other output frequencies are optionally available such as 400Hz for avionic applications. Adjustable voltage can be substituted for a fixed level if preferred. The output of the AC Source is galvanically isolated from the input. Distortion on the input waveform is rectified and a true sinewave with a low distortion level is produced at the output. The wide input range also helps to ensure that sensitive loads are protected against transients and input spikes. The unit is built with over current, over temperature and output short circuit protection. The EAC-S range demonstrates high conversion efficiencies of up to 90% resulting in small footprints and low unit weights. Front panel control and display along with a 0-10Vdc analogue interface are provided as standard. If computer control is required an RS232 interface is optionally available.

- Cost Effective Solid State Converter
- Switchable Output Frequency
- Very Fast Response Times
- High Efficiency up to 90%
- Galvanic Isolation

Selection Table

Part Number	Input Phases	Output Voltage	Output Current	Max Power	Dimensions (Width x Height x Depth)
EAC-SMM 03R	Single	0 - 270Vrms	13A	3kVA	19" x 4U x 560mm
EAC-SMM 05R	Single	0 - 270Vrms	22A	5kVA	19" x 5U x 560mm
EAC-SMM 07R	Single	0 - 270Vrms	32½A	7½kVA	19" x 6U x 560mm
EAC-STM 07R	Three	0 - 400Vrms	28A	7½ kVA	19" x 6U x 560mm
EAC-STM 10T	Three	0 - 400Vrms	37A	10kVA	400 x 625 x 770mm

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

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EAC-SM-1P

Voltage & Frequency Converter

Technical Data

	EAC-SMM 03R	EAC-SMM 05R	EAC-SMM 07R	EAC-STM 07R	EAC-STM 10T
Output Ratings					
Max Output Power	3,000VA	5,000VA	7,500VA	7,500VA	10,000VA
Max True Power at 0.8 pf	2,400W	4,000W	6,000W	6,000W	8,000W
Max Continuous Current	13A	22A	32.5A	28A	37A
Peak current Capability	20A < 3 sec	33A < 3 sec	49A < 3 sec	42A < 3 sec	55.5A < 3 sec
Peak current Capability	52A < 2ms	88A < 2 ms	130 < 2ms	112 < 2ms	148 < 2ms
Crest Factor	4 : 1				
Voltage Range	0 - 270Vrms	0 - 270Vrms	0 - 270Vrms	0 - 400Vrms	0 - 400Vrms
Voltage accuracy	< ± 1Vrms				
Output Frequency	50 / 60Hz Switchable (Option /F400 for 400Hz other output frequencies on request)				
Frequency Accuracy	0.001% of nominal				
Input Ratings					
Input Voltage Range	190 - 267Vrms	190 - 267Vrms	190 - 267Vrms	350 - 440Vrms	350 - 440Vrms
No of Input Phases	1	1	1	3	3
Input Frequency Range	47 - 63Hz				
General					
Operating Temp Range	0 to +40°C				
Storage Temp Range	-20 to +70°C				
Distortion Factor	< 2%				
Response Time	typically <1ms for 10 - 90% load change				
Efficiency	Typically 90%				
Front panel Meters	4 digit for V & I (accuracy ± 2%)				
Analogue Interface	0 - 10Vdc (not isolated)				
Protections	over current, over temperature, output short circuit				
Mechanical					
Case style	Rack Mount	Rack Mount	Rack Mount	Rack Mount	Tower
Dimensions	19" x 4U x 485mm	19" x 5U x 485mm	19" x 6U x 485mm	19" x 6U x 485mm	400 x 625 x 770mm
Weight	18kgs	22kgs	29kgs	48kgs	70kgs

Options Table

Code	Description
/F400	Fixed 400Hz output frequency
/FXXX	User specified output frequency
/LTRS232	RS232 Interface with listener and talker functions
/V300	Extended output voltage range 300Vrms
/V500	Extended output voltage range 500Vrms
/V700	Extended output voltage range 700Vrms

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EAC-ST-3P 3 Phase Voltage & Frequency Converter

Description

These cost effective units excel in applications requiring a 3 phase output with adjustable voltage. The output frequency can be switched between 50 & 60Hz enabling the user to replicate all worldwide standard 3 phase mains outputs. Other output frequencies such as 400Hz can be specified in place of the standard 50/60Hz. Fixed output voltage levels can also be specified ensuring the EAC-S-3P is suitable for simple voltage and frequency conversion. High power conversion efficiencies mean these floor standing models are as compact as possible. A variety of protection features are incorporated in to the design including over current, over temperature and output short circuit. The input and output are galvanically isolated from each other. A clean sinewave with less then 2% distortion is produced at the output. The high peak current capability of up to 4 times the continuous current helps to ensure that these units are suitable for motor type loads. The standard range has models providing an output up to 15kVA per phase. Non-standard Voltage and frequency values along with higher output powers up to 250kVA are available on request.

- 3 Phase Output with Adjustable Voltage
- Switchable Output Frequency
- Very Fast Response Times
- High Efficiency up to 90%
- Galvanic Isolation

Selection Table

Part Number	Input Phases	Output Voltage	Output Current	Max Power	Dimensions (Width x Height x Depth)
EAC-STT 09T	Three	0 - 400Vrms	3 * 13A	3 * 3kVA	400 x 625 x 770mm
EAC-STT 15T	Three	0 - 400Vrms	3 * 22A	3 * 5kVA	400 x 625 x 770mm
EAC-STT 21T	Three	0 - 400Vrms	3 * 30A	3 * 7kVA	400 x 625 x 770mm
EAC-STT 30T	Three	0 - 400Vrms	3 * 43A	3 * 10kVA	600 x 1800 x 800mm
EAC-STT 45T	Three	0 - 400Vrms	3 * 65A	3 * 15kVA	600 x 1800 x 800mm

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

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EAC-ST-3P 3 Phase Voltage & Frequency Converter

Technical Data

	EAC-STT 09T	EAC-STT 15T	EAC-STT 21T	EAC-STT 30T	EAC-STT 45T
Output Ratings					
Max Output Power	3KVA per phase	5kVA per phase	7kVA per phase	10kVA per phase	15kVA per phase
Max True Power at 0.8 pf	2.4kW per phase	4kW per phase	5.6kW per phase	8kW per phase	12kW per phase
Max Continuous Current	3 * 13A	3 * 22A	3 * 30A	3 * 43A	3 * 65A
Peak current Capability	3 * 20A < 3 sec	3 * 33A < 3 sec	3 * 45A < 3 sec	3 * 64A < 3 sec	3 * 97A < 3 sec
Peak current Capability	3 * 52A < 2ms	3 * 88A < 2 ms	3 * 120 < 2ms	3 * 172 < 2ms	3 * 195 < 2ms
Crest Factor	4 : 1				
Voltage Range	0 - 230/400Vrms	0 - 230/400Vrms	0 - 230/400Vrms	0 - 230/400Vrms	0 - 230/400Vrms
Voltage accuracy	< ± 1Vrms				
Output Frequency	50 / 60Hz Switchable (Option /F400 for 400Hz other output frequencies on request)				
Frequency Accuracy	0.001% of nominal				
Input Ratings					
Input Voltage Range	350 - 440Vrms	350 - 440Vrms	350 - 440Vrms	350 - 440Vrms	350 - 440Vrms
No of Input Phases	3	3	3	3	3
Input Frequency Range	47 - 63Hz				
General					
Operating Temp Range	0 to +40°C				
Storage Temp Range	-20 to +70°C				
Distortion Factor	< 2%				
Response Time	typically <1ms for 10 - 90% load change				
Efficiency	Typically 90%				
Front panel Meters	4 digit for V & I (accuracy ± 2%)				
Analogue Interface	0 - 10Vdc (not isolated)				
Protections	over current, over temperature, output short circuit				
Mechanical					
Case style	Tower	Tower	Tower	Tower	Tower
Dimensions	400 x 625 x 770mm	400 x 625 x 770mm	400 x 625 x 770mm	600 x 1800 x 800mm	600 x 1800 x 800mm
Weight	82kgs	98kgs	135kgs	200kgs	275kgs

Options Table

Code	Description
/F400	Fixed 400Hz output frequency
/FXXX	User specified output frequency
/LTRS232	RS232 Interface with listener and talker functions
/V500	Extended output voltage range 500Vrms
/V700	Extended output voltage range 700Vrms