

ACS - Power Source

The complete power line simulation

- ◆ commercial Testing
- ◆ Avionics Testing
- ◆ AC / DC Mode
- ◆ 1 and 3-Phase operation
- ◆ linear Powerbooster
- ◆ Power from 400 - 4600 VA

Voltage range Standard

0 - 300 V AC

0 - 425 V DC

Voltage range HV (Option)

0 - 500 V AC

0 - 700 V DC

Voltage range XHV (Option)

0 - 700 V AC

0 - 1000 V DC

Frequency range Standard

0 - 500 Hz

Frequency range F1 (Option)

0 - 1000 Hz

Frequency range F2 (Option)

0 - 2000 Hz

distortion < 0,2%

Measurements

Voltage(V), Current(A), Peakcurrent(A), effective Power(W), apparent Power(VA), Powerfaktor, Crestfaktor

Voltage and Current constant-Mode

programmable start up phaseangle

20 programmable Device-States

20 programmable sequences (Option)

RS232 Interface

with galvanic isolation Standard

Interface (Option)

with galvanic isolation

IEEE488, USB, LAN

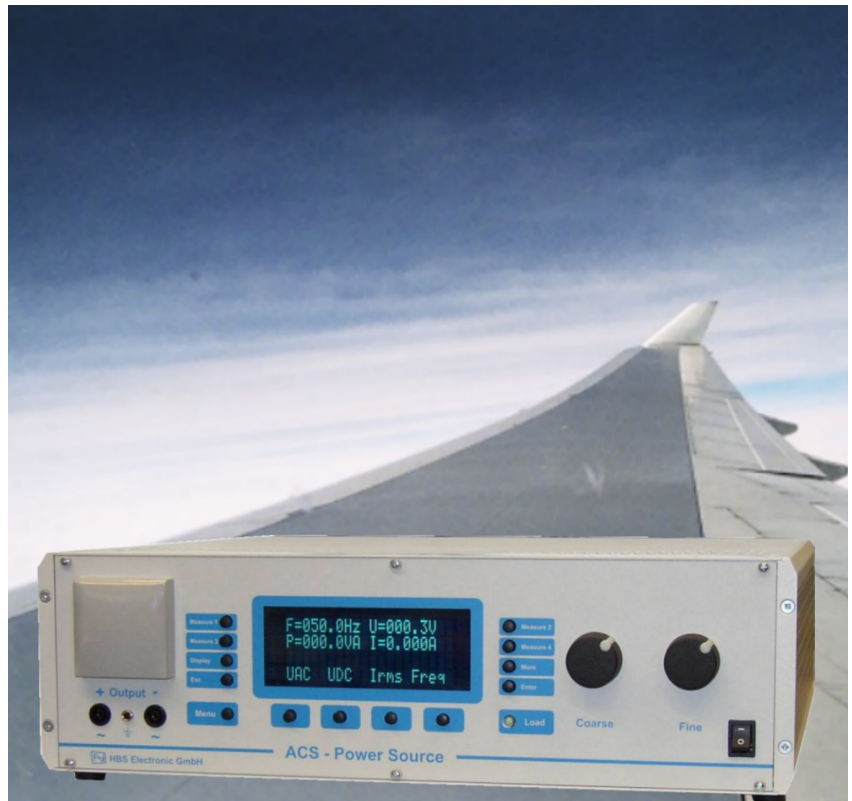
external Oscillator Input (Option)

with galvanic isolation

3-Phase-Mode (Option)

built in Output-Relais

protection for power- voltage-, current and temperature overload



Thanks to the well designed linear power booster the ACS can feed the connected load constantly and with high reliability. For this the operator will face a wide operation spectrum in the areas of commercial nets, supply nets, and aircraft board supply beginning from the first laboratory tests up to the mass production.

The digital DDS signal generation of the ACS Power Source provides a very clean and pure sine wave AC voltage with a distortion less than 0.2%.

The AC, DC, AC+DC mode expands the operation possibilities in many areas.

Input and measure values are displayed on a vacuum fluorescence display of high intensity. The operation can be simply made via push buttons and turning knobs.

Using the integrated RS232 Interface and the available optional Interfaces all ACS Power Source settings and measurements can be completely controlled with an PC.

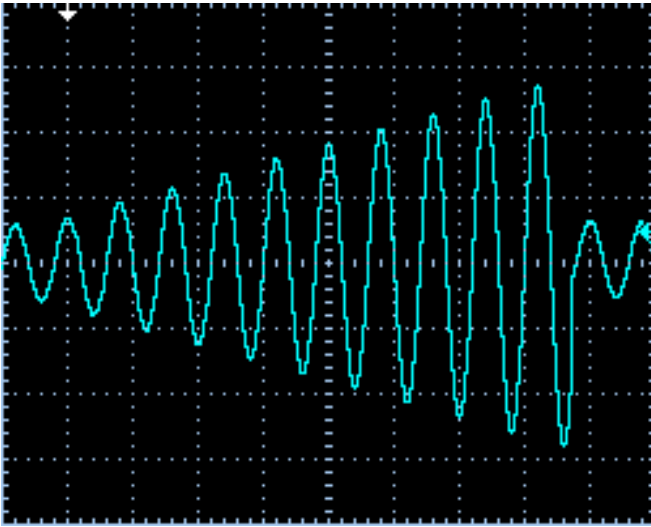
With the option 'sequence' the operator can simulate fast transients, voltage drops, voltage rises, etc.



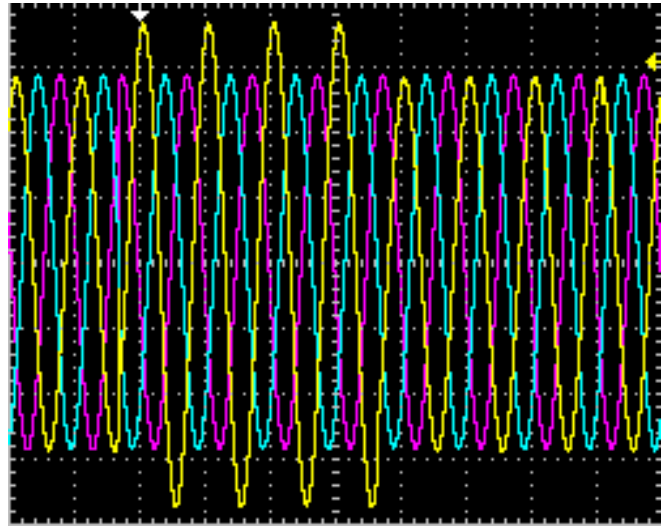
HBS Electronic GmbH

programmable sequences (Option)

With the ACS-Power Source you can generate automatic test-command-sets (Sequences). You can store 20 Sequences with 50 commands for call back later. The function can be used to generate voltage dropouts etc. The minimum time-step of on Sequence is 10 ms. To generate and transfer sequences you can use the PC-program tool(ACS-Control) or remote commands.

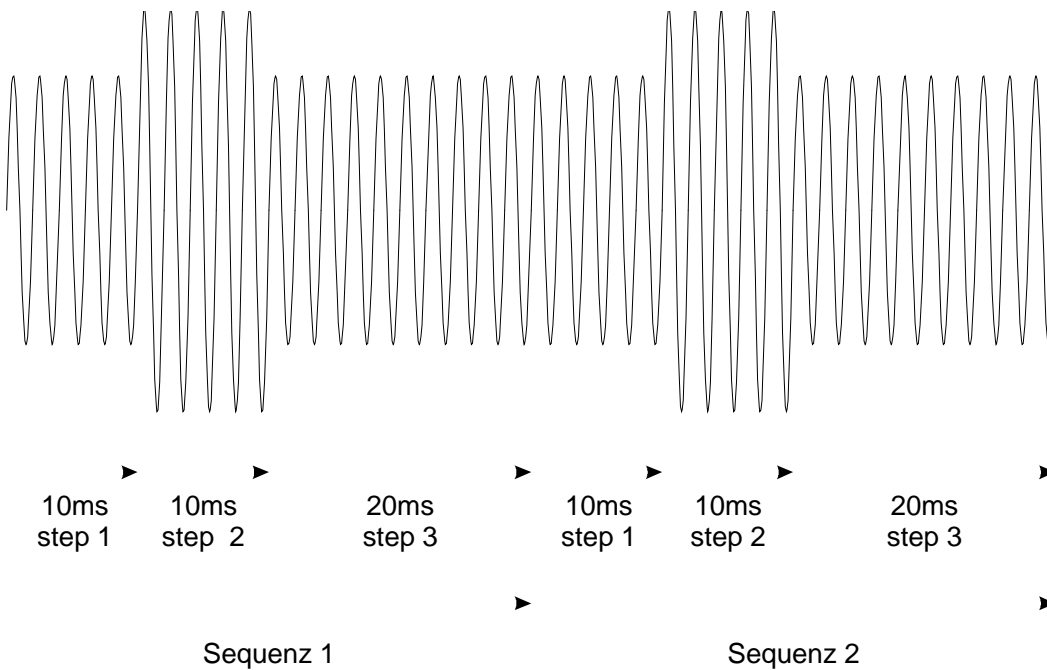


generate a linear voltage ramp with the Option 'Sequence'.

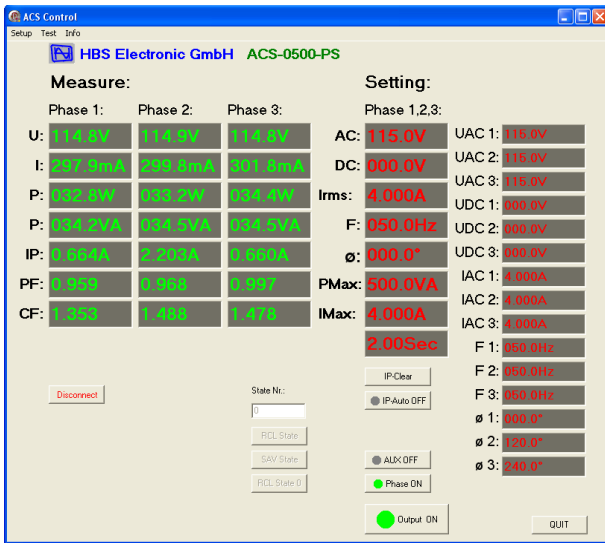


generate a voltage dropout on Phase 1 for 10ms duration with the Option „Sequence“ on a 3-phase system.

the succession of an sequence for 10ms/100VAC, 10ms/130VAC, 20ms/100VAC on 400 Hz repeating 2 times.



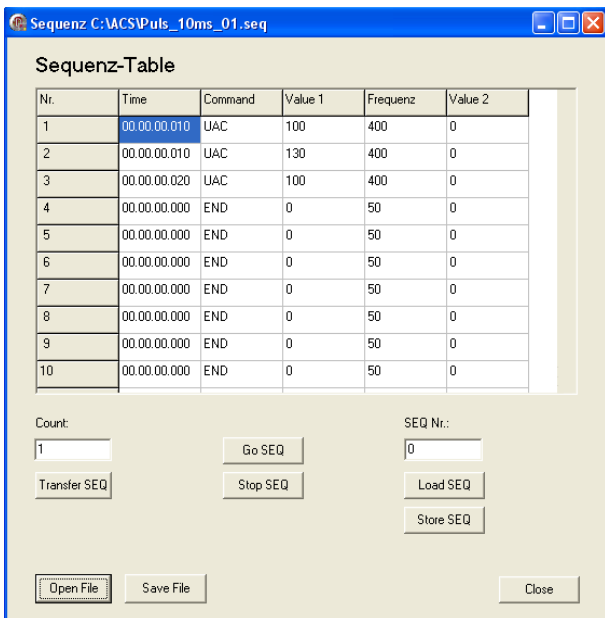
Application software



The software tool ACS-Control uses an Soft-Controlpanel for remote control the ACS-Power Source over PC.

available functions:

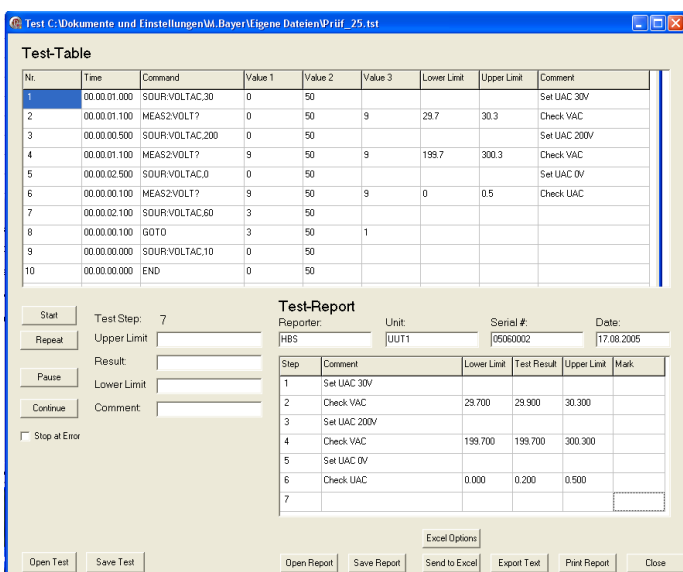
- ♦ setting values / parameters
- ♦ display measurements
- ♦ generate, transfer, load, save and computing of sequences.
- ♦ generate, transfer, load, save and computing of easy to use test-command-sets



For the generation of sequences the Software ACS-Control gives you an easy to use Sequenze-Table.

available functions:

- ♦ generate, load, save sequences to hard disk.
- ♦ transfer sequences to the ACS-Power-Source
- ♦ load, save and computing sequences in the user ACS-Power Source RAM.
- ♦ Start and Stop sequences



The Software ACS-Control gives you also an function for generation of simple test-command-sets to make settings and measurements for testing equipment.

available functions:

- ♦ generate, load, save and computing test-command-sets.
- ♦ measurement comparing for upper and lower-limits
- ♦ report test-steps
- ♦ load, save and print test-reports

ACS - Power Source

Specifications

Typ	ACS-0400-PS	ACS-0800-PS	ACS-1600-PS
Power Output (VA)	400 / 500* * extended for1 minute	800 / 1000* * extended for1 minute	1600 / 2000* * extended for1 minute
Voltage-Range Standard	0-300VAC 0-425VDC	0-300VAC 0-425VDC	0-300VAC 0-425VDC
Voltage-Range (Option HV)	0-500VAC 0-700VDC	0-500VAC 0-700VDC	0-500VAC 0-700VDC
Voltage-Range (Option XHV)	0-700VAC 0-1000VDC	0-700VAC 0-1000VDC	0-700VAC 0-1000VDC
Maximum Current r.m.s. (Option HV) (Option XHV)	3A 1,8A 1,5A	6A 3,6A 3A	12A 7,2A 6A
Maximum Current DC (Option HV) (Option XHV)	3A 1,8A 1,5A	6A 3,6A 3A	12A 7,2A 6A
Max. period. peak Current (Option HV) (Option XHV)	8A 4,8A 4A	20A 12A 10A	40A 24A 20A
Creast Factor	2,6	3,3	3,3
Line Regulation	0,1%	0,1%	0,1%
Load Regulation on Nominalpower	0,1%	0,1%	0,1%
Distortion on Nominalpower	0,2%	0,2%	0,2%
Programming Accuracy AC-Voltage	0,1% (10-400Hz)	0,1% (10-400Hz)	0,1% (10-400Hz)
Programming Accuracy DC-Voltage	0,1%	0,1%	0,1%
Programming Accuracy Constantcurrent r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
Programming Accuracy Frequency	0,1Hz	0,1Hz	0,1Hz
Programming Accuracy Switch On Phase	0,1 degree	0,1 degree	0,1 degree
Frequency Standard Frequency (Option F1) Frequency (Option F2)	500Hz 1 kHz 2 kHz	500Hz 1 kHz 2 kHz	500Hz 1 kHz 2 kHz
External Oscillator Input Frequency Standard Frequency (Option F1) Frequency (Option F2)	20Vss DC-500 Hz DC-1 kHz DC-2 kHz	20Vss DC-500 Hz DC-1 kHz DC-2 kHz	20Vss DC-500 Hz DC-1 kHz DC-2 kHz
Measurement Voltage r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
Measurement Current r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
Measurement Current peak	0,8%	0,8%	0,8%
Measurement Real Power	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
external Oscillator input (Option T) with optical isolation	Option	Option	Option
Interface with optical isolation IEEE488,USB,LAN	Option RS232 Standard	Option RS232 Standard	Option RS232 Standard
chassis 19"	19" 3HE, weight 17Kg deepness 590mm	19" 3HE, weight 19Kg deepness 590mm	19" 6HE, weight 32Kg deepness 590mm

ACS - Power Source

Specifications

Typ	ACS-2200-PS	ACS-3000-PS	ACS-4600-PS
Power Output (VA)	2200 / 2750* * extended for 1 minute	3000 / 3750* * extended for 1 minute	4600 / 5750* * extended for 1 minute
Voltage-Range Standard	0-300VAC 0-425VDC	0-300VAC 0-425VDC	0-300VAC 0-425VDC
Voltage-Range (Option HV)	0-500VAC 0-700VDC	0-500VAC 0-700VDC	0-500VAC 0-700VDC
Voltage-Range (Option XHV)	0-700VAC 0-1000VDC	0-700VAC 0-1000VDC	0-700VAC 0-1000VDC
Maximum Current r.m.s. (Option HV) (Option XHV)	16A 9,6A 8A	20A 12A 10A	30A 18A 15A
Maximum Current DC (Option HV) (Option XHV)	16A 9,6A 8A	20A 12A 10A	30A 18A 15A
Max. period. peak Current (Option HV) (Option XHV)	60A 36A 30A	80A 48A 40A	100A 60A 50A
Creast Factor	3,75	4	4
Line Regulation	0,1%	0,1%	0,1%
Load Regulation on Nominalpower	0,1%	0,1%	0,1%
Distortion on Nominalpower	0,2%	0,2%	0,2%
Programming Accuracy AC-Voltage	0,1% (10-400Hz)	0,1% (10-400Hz)	0,1% (10-400Hz)
Programming Accuracy DC-Voltage	0,1%	0,1%	0,1%
Programming Accuracy Constantcurrent r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
Programming Accuracy Frequency	0,1Hz	0,1Hz	0,1Hz
Programming Accuracy Switch On Phase	0,1 degree	0,1 degree	0,1 degree
Frequency Standard Frequency (Option F1) Frequency (Option F2)	500Hz 1 kHz 2 kHz	500Hz 1 kHz 2 kHz	500Hz 1 kHz 2 kHz
External Oscillator Input Frequency Standard Frequency (Option F1) Frequency (Option F2)	20Vss DC-500 Hz DC-1 kHz DC-2 kHz	20Vss DC-500 Hz DC-1 kHz DC-2 kHz	20Vss DC-500 Hz DC-1 kHz DC-2 kHz
Measurement Voltage r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	
Measurement Current r.m.s.	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
Measurement Current peak	0,8%	0,8%	0,8%
Measurement Real Power	0,2% (40-400Hz)	0,2% (40-400Hz)	0,2% (40-400Hz)
external Oscillator Input (Option T) with optical isolation	Option	Option	Option
Interface with optical isolation IEEE488, USB, LAN	Option RS232 Standard	Option RS232 Standard	Option RS232 Standard
chassis 19"	19" 6HE, weight 34Kg deepness 590mm	19" 6HE, weight 38Kg deepness 590mm	19" 12HE, weight 64Kg Rack

Order Information

Types

ACS-0400-PS	Power 400 / 500* VA
ACS-0800-PS	Power 800 / 1000* VA
ACS-1600-PS	Power 1600 / 2000* VA
ACS-2200-PS	Power 2200 / 2750* VA
ACS-3000-PS	Power 3000 / 3750* VA
ACS-4600-PS	Power 4600 / 5750* VA

* extended for 1 minute

Options

HV	extended voltage range 1 0 - 500 V AC / 0 - 700 V DC
XHV	extended voltage range 2 0 - 700 V AC / 0 - 1000 V DC
F1	extended frequency range 1 0 - 1000 Hz
F2	extended frequency range 2 0 - 2000 Hz
IEEE488	IEEE488 Interface
USB	USB Interface
LAN	LAN and USB Interface
SEQ	programmable Sequences
T	external Oscillator Input with galvanic isolation
3P	3 Phase-Mode

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