

## HE-ACS3- tripple-phase AC Power Sources

750 - 30.000 VA



### FEATURES

The new AC source of the HE-ACS3- series is equipped with a proven linear power stage for securely supplying the power application. The various computer interfaces provide for a state-of-the-art connection of the AC source to all common means of communications.

Measurement and input values as well as programmable wave forms are graphically displayed by means of a high-resolution and high-luminosity display. User-defined wave forms can be read from an SD card via the external SD card slot. Additionally, the user can access permanently stored waves.

### OVERVIEW

- Power range from 250 up to 10.000 VA
- Output voltage from 0 - 700 VAC or 1000 VDC per phase
- Variable frequency from 1 up to 2000 Hz
- Wave forms sine, triangle and rectangle
- Maximum current of up to 600 A per phase
- Simulation of 1 or 3 phases
- Graphic Display
- Measurement of voltage, effective current, average value, peak current, active power, idle power, apparent power, power factor and crest factor.
- Script control: process programming and booting from memory card.
- Creation of user-defined wave formes and programming via memory card or digital interface.
- Three preinstalled wave formes (programming via memory card).
- Data log function: current operating values are saved to the memory card within an adjustable interval.
- Script control combined with the data log function enables the build-up of an independent „stand alone“ testing position.
- Voltage and current mode operation
- Free memory for three programmable curves (WAV files), enabled via an external SD card (optional).
- Adjustable external oscillator input  $\pm 10$  V (optional).
- Digital interfaces: IEEE, RS 232 / 485, USB, LAN (optional).
- Galvanic isolated analog interface: 0 - 5 V or 0 - 10 V (optional).
- Sync input for synchronization with external sources.
- Sync output for triggering external measurement devices or similar.
- Disengageable output voltage during a specific number of half periods (optional). (Dip function, programmable via digital interface)
- Engageable output voltage during a specific amount of time (optional). (Gate function, programmable via digital interface).
- Fixed programmed EN61000-4-11-certified Testing procedure (via front panel).
- Customer specific models on request.

## TECHNICAL DATAS

Power Derating @ cos <+/-0,7	3x250 VA	3x500 VA	3x1000 VA	3x2000 VA	3x3000 VA	3x4000 VA
Output voltage range Standard	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC
Output voltage range (Option V500)	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC
Output voltage range (Option V700)	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC
Max. effective Current I eff	3x3 A	3x6 A	3x10 A	3x15 A	3x20 A	3x30 A
Option V500	3x1,8 A	3x3,6 A	3x6 A	3x9 A	3x12 A	3x18 A
Option V700	3x1,5 A	3x3,0 A	3x5 A	3x7,5 A	3x10 A	3x15 A
Max DC Current	3 A	6 A	10 A	15 A	20 A	30 A
Option V500	1,8 A	3,6 A	6 A	9 A	12 A	18 A
Option V700	1,5 A	3,0 A	5 A	7,5 A	10 A	15 A
Line regulation	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Load regulation	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Distortion at Pmax	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Programming accuracy AC voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
Programming accuracy DC Voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
Programm accuracy <10 A	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Current I eff >=10 A	10 mA	10 mA	10 mA	10 mA	10 mA	10 mA
Programm accuracy Switch-on phase	0,1°	0,1°	0,1°	0,1°	0,1°	0,1°
Programm accuracy frequency	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz
Frequency Standard	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
External oscillator input	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz
resolution measurement U eff, DC-voltage, peak voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
resolution measurement <10 A	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
I eff, I s-s >=10 A	10 mA	10 mA	10 mA	10 mA	10 mA	10 mA
resolution measurement <10 A	10 mW	10 mW	10 mW	10 mW	10 mW	10 mW
real power >=10 A	100 mW	100 mW	100 mW	100 mW	100 mW	100 mW
Analog interface galvanically isolated (Option ATI 5)	0-5 V	0-5 V	0-5 V	0-5 V	0-5 V	0-5 V
Analog interface galvanically isolated (Option ATI 10)	0-10 V	0-10 V	0-10 V	0-10 V	0-10 V	0-10 V
Computer interface galvanically isolated	Option	Option	Option	Option	Option	Option
RS232, RS485, IEEE488, LAN, USB	Option	Option	Option	Option	Option	Option
19" case / rack (WxHxD)	3x19"x4Ux 434,5 mm	3x19"x4Ux 434,5 mm	3x19"x6 Ux 434,5 mm	3x19"x6 Ux 434,5 mm	3x19"x10 Ux 434,5 mm	3x19"x16 Ux 600 mm

Power Derating at $\pm 0,7$	3x5000 VA	3x6000 VA	3x7000 VA	3x8000 VA	3x9000 VA	3x10000 VA
Output voltage range Standard	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC	3x0-300 VAC 0-425 VDC
Output voltage range (Option V 500)	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC	3x0-500 VAC 0-700 VDC
Output voltage range (Option V 700)	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC	3x0-700 VAC 0-1 KVDC
Max. effective Current I eff Option V500	3x35 A 3x21 A	3x40 A 3x24 A	3x50 A 3x30 A	3x60 A 3x36 A	3x70 A 3x42 A	3x80 A 3x48 A
Option V700	3x17,5 A	3x20 A	3x25 A	3x30 A	3x35 A	3x40 A
Max DC Current Option V500	35 A 21 A	40 A 24 A	50 A 30 A	60 A 36 A	70 A 42 A	80 A 48 A
Option V700	17,5 A	20 A	25 A	30 A	35 A	40 A
Line regulation	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Load regulation	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Distortion at Pmax	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %	0,10 %
Programming accuracy AC voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
Programming accuracy DC voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
Programm accuracy $<10 A$	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
Current I eff $\geq 10 A$	10 mA	10 mA	10 mA	10 mA	10 mA	10 mA
Programming accuracy Switch-on phase	0,1°	0,1°	0,1°	0,1°	0,1°	0,1°
Programming accuracy frequency	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz	0,1 Hz
Frequency Standard	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz	500 Hz
External oscillator input	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz	0-10 V/1 kHz
resolution measurement U eff, DC-voltage, peak voltage	100 mV	100 mV	100 mV	100 mV	100 mV	100 mV
resolution measurement $<10 A$	1 mA	1 mA	1 mA	1 mA	1 mA	1 mA
I eff, I s-s $\geq 10 A$	10 mA	10 mA	10 mA	10 mA	10 mA	10 mA
resolution measurement $<10 A$	10 mW	10 mW	10 mW	10 mW	10 mW	10 mW
real power $\geq 10 A$	100 mW	100 mW	100 mW	100 mW	100 mW	100 mW
Analog interface galvanically isolated (Option ATI 5)	0-5 V	0-5 V	0-5 V	0-5 V	0-5 V	0-5 V
Analog interface galvanically isolated (Option ATI 10)	0-10 V	0-10 V	0-10 V	0-10 V	0-10 V	0-10 V
Computer interface galvanically isolated	Option	Option	Option	Option	Option	Option
RS 232, RS485, IEEE488, LAN, USB	Option	Option	Option	Option	Option	Option
19" case / rack (WxHxD)	3x19"x16 Ux 600 mm	3x19"x16 Ux 600 mm	3x19"x16 Ux 600 mm	3x19"x20 Ux 780 mm	3x19"x20 Ux 780 mm	3x19"x20 Ux 780 mm

## OPTIONS

V500	0 - 500 VAC / 0 - 700 VDC
V700	0 - 700 VAC / 0 - 1000 VDC
F1000	1 - 1000 Hz
F2000	1 - 2000 Hz
IEEE	IEEE 488 Interface
RS 232	RS232 Interface
RS485	RS485 Interface
USB	USB Interface
LAN	LAN Interface
ATI 5	external galvanic isolated Interface 0 - 5 V
ATI 10	external galvanic isolated Interface 0 - 10 V
EXT	OSZ external oscillator input
SD	SD card slot
SYNC A	Sync output for triggering external measurement devices or similar (optinal)
SYNC E	Sync input for synchronization with external sources (optional)
INTLOCK	Interlock input / safety shutdown
DIP	Disengageable output voltage during a specific number of half periods (digital interface required)
GATE	Engageable output voltage during a specific amount of time (digital interface required)

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