

ZERA

VCS 320 - 1
VCS 320 - 2

Phantom Load / Power Source



Voltage / Current Source 3- Phase AC

General

The VCS 320-1 and VCS 320 – 2 are portable 3 phase AC sources, producing independent and controllable voltage and current outputs.



Features

They are suitable for

- electricity meter testing in combination with the ZERA automatic reference meters,
- testing transducer,
- testing of power meters and similar measurement devices
- substandard meter testing in combination with the ZERA current booster CBS320 and the comparator COM3000.

Additional features

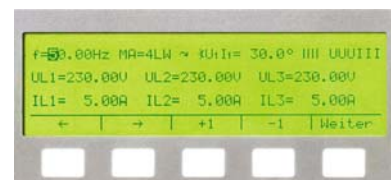
- controllable via application software VCS320 or SSM3000,
- only single phase input power is required,
- simple, menu-controlled operation using LCD on front panel,
- RS232-C and IEE488 – interface for integration into automatic test systems,
- defined loadpoints can be stored.

Capabilities

The application software allows the operator full control of all output parameters (defining load points). Up to 10 load points can be stored in the internal load table.

The software allows control of:

- Frequency
- Phase angle
- Measuring mode Phase sequence
- Phase sequence
- Voltage
- Current



Measurement and display:

Six freely selectable instantaneous values can be logged and displayed.

Measurements

The following values can be measured:

- RMS values of the individual voltages (Phase-neutral)
- DC voltage and current of the measured inputs
- Phase angle between voltage and current
- Frequency

The following values are calculated:

- Active, reactive and apparent power for each phase and total system.
- Power factor for each phase.

Options

- Windows® application
software SSM 3000



Application software SSM3000

Outputs

Current output

- 12A 120A
- max. 3x150 VA
- Primary/Secondary 1:10



Current Booster CBS 320

Technical data

Phantom Load Power Source	VCS 320 - 1	VCS 320 - 2
Power supply	100 ... 240 VAC, +10%, +15%	100 ... 240 VAC, +10%, +15%
Max. power consumption	330 W	330 W
Current outputs - Current Range - Power - Resolution - Setting accuracy - Measurement error - Distortion - Stability	0.12 – 0.6 – 2.4 – 6 - 24A 1% ... 100% max. 3 x 30 VA XXX.X mA ... XX.XX A better 0.2% < 0.1% of range < 0.3% better than 0.2% / 8h	0.12 – 0.24 – 0.6 – 3 – 6 - 15 - 30 - 60A, 1% ... 100% max. 3 x 65 VA XXX.X mA ... XX.XX A better 0.2% < 0.1% of range < 0.3% better than 0.2% / 8h
Voltage outputs - Voltage range - Power - Resolution - Setting accuracy - Measurement error - Distortion - Stability	80 –160 – 320 V 50% ... 100% (phase-neutral) max. 3 x 25 VA XX.XX V ... XXX.X V Better than 0.2% < 0.1% of range < 0.3% better than 0.2% / 8h	80 –160 – 320 V 50% ... 100% (phase-neutral) max. 3 x 25 VA XX.XX V ... XXX.X V Better than 0.2% < 0.1% of range < 0.3% better than 0.2% / 8h
Frequency - Range - Resolution - Accuracy	40 .. 70 Hz quartz controlled 50/60 mains synchronised XX.XX Hz better than 0.002%	40 .. 70 Hz quartz controlled 50/60 mains synchronised XX.XX Hz better than 0.002%
Phase angle (U – I) - Resolution - Error - Stability	0°... 360° XXX.X° < 0.2° (at symmetrical load) better than 0.2° / 8h	0°... 360° XXX.X° < 0.2° (at symmetrical load) better than 0.2° / 8h
DC- measurement inputs Range Error Resolution	-20mA ... +20mA / -10V ... +10V < 0.1% of range XX.XX mA / XX.XX V	-20mA ... +20mA / -10V ... +10V < 0.1% of range XX.XX mA / XX.XX V
Interfaces	RS 232-C interface for remote control by PC or TPZ 303 IEEE 488- interface	RS 232-C interface for remote control by PC or TPZ 303 IEEE 488- interface
Inputs	Remote control ON / OFF by external relay (dosage control) DC measurement input (± 20mA / ± 10V)	Remote control ON / OFF by external relay (dosage control) DC measurement input (± 20mA / ± 10V)
Outputs	3 x current 3 x voltage 4 auxiliary contacts	3 x current 3 x voltage 4 auxiliary contacts
Protections	Electronic overload and short circuit protection	Electronic overload and short circuit protection
Dimensions (L x W x H)	505 x 240 x 520 mm	505 x 240 x 520 mm
Weight	Approx. 24.8 kg	Approx. 33.2 kg
Accessories supplied	Cable for power supply RS232- C cable Remote dosage control cable PC- user software VCS	Cable for power supply RS232- C cable Remote dosage control cable PC- user software VCS

Subject to alteration !