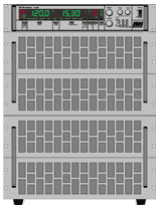
Datasheet Serie ZSAC

Höcherl & Hackl
The electronic load

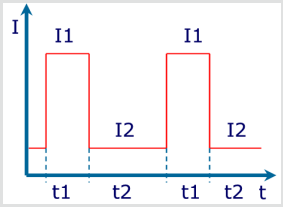
Model	ZSACRV14026	
Order no.	11-021-000-01	

Max. AC input voltage	260 V
Max. DC input voltage	370 V
Max. load current Imax	100 A
Continuous power	14000 W
Short-time power	14000 W
Frequency	40 ... 700 Hz
Current setting	0 ... 100 A
Resistance setting	0.5 Ohm ... 120 Ohm
Load connections [1)]	SBUS6-125
Power consumption	640 VA
Max. noise [2)]	80 dB(A)
Weight ca.	100 kg
Housing [3)]	19" - 14 U

1. SB4: 4 mm safety socket
   SB6: 6 mm safety socket (also fits 4mm jack)
2. Measured on the front from distance of 1 m
3. 1 U = 44.45 mm

Subject to modifications without notice, errors and omissions expected

Accuracy of local setting, without presetting [1]		
	of setting	of corresponding range
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.3 % ±0.6 %
Accuracy of local presetting [1]		
	of presetting	of corresponding range
Current DC, 50 Hz 400 Hz	 ±0.9 % ±1.4 %	 ±0.3 % ±0.6 %
Resistance DC, 50 Hz 400 Hz	 ±1.9 % ±3.4 %	 ±0.5 % of current range ±1 % of current range
Total harmonic distortion [2]		
DC, 50 Hz 400 Hz	1 % at maximum current 5 % at maximum current	
Accuracy of display		
	of measured value (real value)	of corresponding range
Voltage DC, 50 Hz 400 Hz	 ±0.3 % ±0.6 %	 ±0.1 % ±1 digit ±0.2 % ±1 digit
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.3 % ±1 digit ±0.6 % ±1 digit
Accuracy of setting, programming via data interface [1]		
	of setting	of corresponding range
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.3 % ±0.6 %
Resistance DC, 50 Hz 400 Hz	 ±1.5 % ±3 %	 ±0.5 % of current range ±1 % of current range
Setting resolution	16 bits	
Accuracy of measurement, read out via data interface		
	of measured value (real value)	of corresponding range
Voltage DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.05 % ±0.1 %
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.05 % ±0.1 %
Measurement resolution	18 bits	
Sampling rate	330 ms, not triggerable	

Modulator in local operation		
2 currents and 2 times can be set independently		
Time ranges	100 ms	1000 ms
Accuracy of time setting	of setting ±1.4 %	of corresponding range ±0.5 %
I/O port: accuracy of analog control 0 ... 3.5 V / 0 ... 7 V for current		
	of setting	of corresponding range
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±0.3 % ±0.6 %
	Input resistance of analog inputs >10 kΩ	
I/O port: accuracy of analog monitor signals 0 ... 7 V for voltage and current, 0 ... 5 V for power		
	of analog signal of real value	offset voltage
Voltage DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±15 mV ±30 mV
Current DC, 50 Hz 400 Hz	 ±0.5 % ±1 %	 ±15 mV ±30 mV
Power DC, 50 Hz 400 Hz	 ±2 % ±4 %	 ±30 mV ±60 mV
	GND galvanically isolated from load input	
I/O port: permissible potentials		
GND - Input LO	max. 500 V [3]	
GND - PE	max. 125 V [3]	
I/O port: control inputs		
Input level	up to 24 V	
Input		
Frequency range	DC, 40 ... 800 Hz	
Input resistance	DC: > 50 kΩ at deactivated input	
Input capacity	ca. 1.5 µF/1,400 W	
Parallel operation	up to 3 devices in Master-Slave operation (hardware-controlled)	
Max. input voltage Vmax	see model overview	
Min. input voltage Vmin for max. current	see model overview	

The specified accuracies refer to an ambient temperature of 23 ±5 °C. The specified accuracies are valid when the unit is connected to undisturbed voltages (ripple and noise < 0.1 %). At voltages with higher disturbance values the accuracy can change for the worse.

1. The accuracy applies for the specified frequencies.
   At higher frequencies the accuracy decreases.
2. The total harmonic distortion increases at lower currents.
3. Positive or negative DC voltage or RMS value of a sinusoidal AC voltage.

Technical Data (continued)

Input: permissible Potentials	
Input LO - PE	max. 300 V [3]
Power	
Continuous power	see model overview (at Ta = 21 °C)
Derating	-1.2 %/°C for Ta > 21 °C
Protection and monitoring	
Protective devices	overcurrent overpower overtemperature
Monitoring	overvoltage undervoltage (if the input voltage is too low for the set current)
Terminals	
Load input	see model overview
Sense	SBUS4-32, see starting at page 101
Operating conditions	
Operating temperature	5 ... 40 °C
Stock temperature	-25 ... 65 °C
Max. operating height	2,000 m above sea level
Pollution degree	1
Max. humidity	80 % at 31 °C, linear decreasing to 50 % at 40 °C
Min. distance rear panel - wall or other objects	70 cm
Cooling	temperature-controlled air cooling
Noise	see model overview
Supply voltage	115/230 V AC (±10 %), selectable, 50 ... 60 Hz
Power consumption	see model overview

Mechanics	
Housing, weight	see model overview
Color Front Rear Side panels, top	 RAL7032 (pebble grey) RAL7032 (pebble grey) RAL7037 (dusty grey)
Safety and EMC	
Safety class	1
Safety	IP20
Measuring category	O (CAT I according to EN 61010:2004)
Electrical safety	DIN EN 61010-1 DIN EN 61010-2-030
EMC	DIN EN 61326-1 DIN EN 55011 DIN EN 61000-3-2 DIN EN 61000-3-3
Calibration, warranty	
FCC-ZSACxx	Factory Calibration Certificate, 2 x for free
Warranty	2 years

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   At higher frequencies the accuracy decreases.
2. The total harmonic distortion increases at lower currents.
3. Positive or negative DC voltage or RMS value of a sinusoidal AC voltage.