

# HEINZINGER ERS COMPACT

48V Solution

## ERS COMPACT

Our solution for low power applications

### Technical Benefits

- Intuitive touch-panel for stand-alone operation.
- Test-sequencer for individual drive cycles
- Integrated Arbitrary generator
- Modular design for cascading up to 16 systems in parallel.
- Master-slave-control
- USB, Ethernet and CAN Interface (1kHz)
- Comprehensive security features
- 2-quadrant-system



The relevance of 48V vehicle onboard power systems is grown through the use of Micro- and Mild-Hybrid-Systems. This demands not only new components and modules, but also new requirements for the test systems.

In addition to the typical performance data, such as current and voltage, short-term overload capability and the dynamics of battery simulators have a central role, if you want to map driving cycles really realistically. Both aspects are combined in the new ERS compact, making it the ideal bidirectional power supply for low voltage applications. The ERS compact has a continuous power of 5kW, 10kW and a maximum power of 15kW and impulse current up to 360A.

A further advantage is the modular design of ERS-Compact. You have different voltage combinations up to 1000V and the possibility to connect in maximum 16 systems in parallel.

So you are able to realize any voltage and current combinations. Furthermore it enables you to easily upgrade the system at a later date.

With the use of the latest FPGA, a transient time for voltage and current of less than 1.5ms can be reached. This means that driving cycles and wave-forms can be traced in real-time. Positive side effect of the new technology, the efficiency of the ERS compact increases to a remarkable >93 % and you save additional energy.

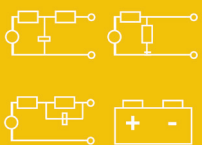
The ERS Compact can be used, as battery-simulator or as battery tester. The intuitive touch-panel, combined with the test-sequencer, arbitrary generator function and control software, support customers' needs as „standalone“ unit. For use as sub-systems in a higher-level testenvironment from the development stage through to series production the ERS Compact supply several interface like CAN or Ethernet.

**48V**

Mild-Hybrid



Real-Time-Interface



Battery simulation

# HEINZINGER ERS COMPACT – 19“ rack mount version

48V Solution – For low power applications

## Output

device power	5, 10, 15 kW
output voltage	0... 60/80V (up to 1000V)
output current	up to $\pm 360A$

## Accuracy dynamics

voltage accuracy	$\leq 0.1\%$ FS
voltage rise time (10 % - 90 %)	typical < 2ms [resistive load] max. 30ms
setting resolution	< 0.1V
residual ripple	$\leq 0.2\%$ Unom (f=0-1MHz)
current accuracy	$\leq 0.4\%$ FS
current rise time (10 % - 90 %)	typical < 2ms [resistive load] max. 30ms
setting resolution	< 0.1A
residual ripple	$\leq 0.7\%$ Inom (f=0-1MHz)

## Main connection

AC input voltage	3x342...528V~ 3P/N/PE
AC input frequency	47... 63Hz
power factor	$\geq 0.99$

## Ambient conditions

operating temp.	5... 50°C
humidity	15... 80 % (non condensing)
cooling	air cooled system

## Dimensions (WxHxD)

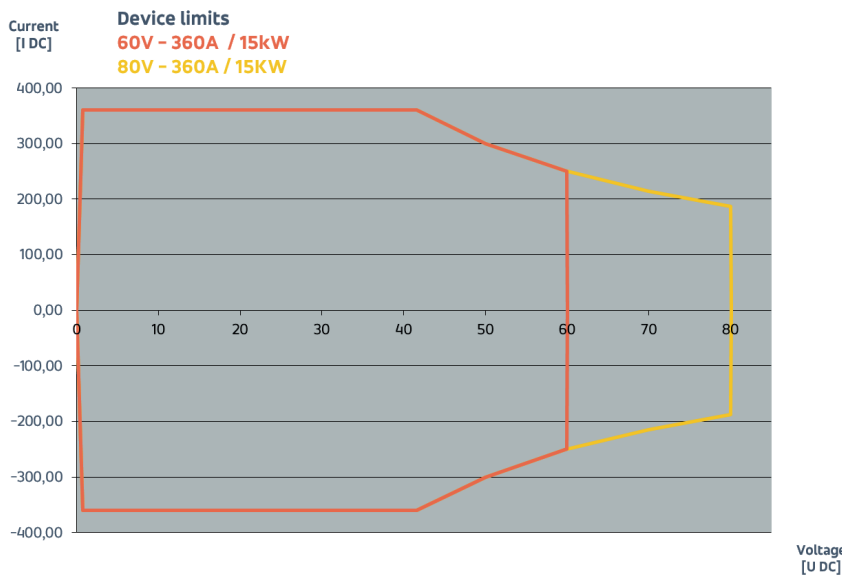
19“ solution (9 HE)	482 x 133 x 700 mm
Mobile solution	707 x 1,300 x 750 mm

## Standards

protection class	IP 20 EN 60529
EM emissions	EN 61326
	EN 61010
safety	EN 60950
	IEC 1010

Version 10/2018 subject to technical modifications

## Operation range ERS COMPACT



**HIGH VOLTAGE  
BUT SMART**

## Options

- Control-Software
- Digital interface modules
  - CAN/CANopen
  - Ethernet
  - RS232
  - Profinet
- SCPI-Protocoll and LabView support
- Mobile version

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