

HEIDEN
COMPETENCE IN POWER
2026

Company Presentation

electronica

Tu.10. to Fr.13. November 2026

Topics

- About us
- News
- Test-Systems HTS17 / HTS27
- DC-Power Supplies,
  Regenerative Loads,
  Source-Sink Systems HEA Series
- Highest Quality AC and DC
  Power Supplies
  G5 and TC.ACS
- High-current Power Supplies
  1138 and 4606
- Bidirectional Sources, AINUO
- Bidirectional Sources, NGI
- AC-Sources, Preen
- High Precision Loads, HuH
- Power Analyzers, Infratek
- Saftety Tester, AINUO
- GPUs (Ground Power Units)

- References
- Connected ?

About Us

About us







time

1964 … Created in Munich

1972 … Incorporated as limited company

2002/2003 Succession by current owner Franz J. Dorfner

2023 The children of Mr. Dorfner Dominic and Corinna join the board of directors.

2025 …

Providing high-end, high-value-added power supply technology and systems for development, test and service/maintenance

Pürgen, (Landsberg/Lech), Bavaria (50km west of Munich/Germany)

12-15 employees

Stronger together

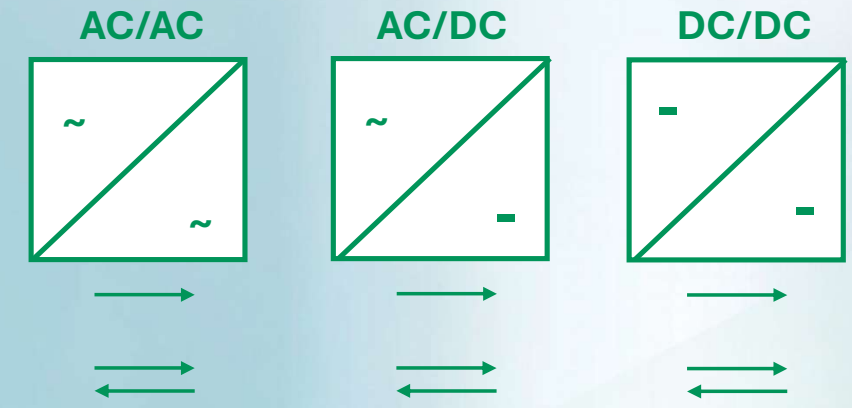
HEIDEN electronics Ltd.	HEIDEN power Ltd.	Partnerships and Representations	
Power Supplies	Sales	High-Performance Power Supplies, Loads and Grid Simulators	REGATRON
Chargers	Consulting / Planning	DC High-Power Supplies & Loads	Elektro-Automatik
Ground Power Units	Service / Support	DC Power Supplies	TDK
	Custom Design	AC Sources and Grid Simulators	Preen Power Soultions
	OEM products	Loads	H&H Höcherl & Hackl The electronic load
		Power Analyzers	INFRATEK AG electronic products

USPs – Competence in Power

- Consulting and direct supplier-contacts for perfect service from idea, through the project until maintenance
- Product-portfolio „One-Stop-Shop“ – but strategically oriented towards the target markets of our customers

U(nique)	S(pecific)	P(rice)
Best-Of-Class Best-Of-TCO Standard AC and DC-Power Components and –Systems	**Adaptations or full custom builds**	**Price competitive for competition in and with China and Asia**
Regatron EA Elektroautomatik Gustav-Klein Plating electronic Höcherl und Hackl	**Knestel Elektronik**	**Ainuo Kewell NGI Preen**

Product Portfolio



- **Unidirectional**
  - AC-Source and AC-Sink
  - DC-Source and DC-Sink
- **Bidirectional**
  - GRID-Simulators
  - AC-Source-Sink-Systems
  - DC-Source-Sink-Systems
- **Test-Systems** for Drive Trains, Battery Chargers, Batteries, Fuel Cells, PV, Electrolyzers, …
- Power Analyzers and Impedance Meters

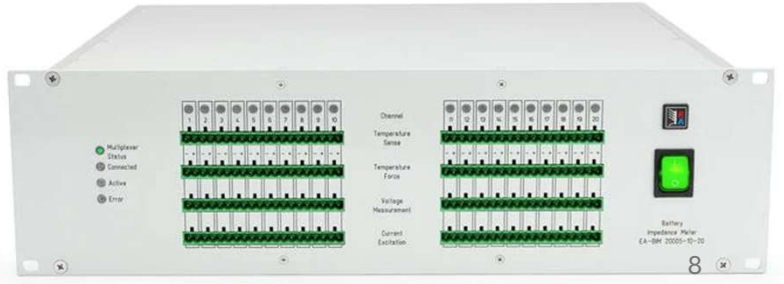
News

- **HTS-25** DC Source-Sink System
  - 300kW or 600kW @ 1000A
  - Voltage range
    2x 5 – 750 V or 1x 10 - 1500 V
- **HTS-26** DC Source-Sink System
  - 250kW or 500kW
  - 1000V/1000A 1200V/1000A 1500V/800A
- **HKE-BDCC** Bidirectional DC-DC Converter
  - 100kW, 500/1000V, 320/160A
  - 250kW, 700/1400V, 700/350A
- **HEA-BIM** Battery Impedance Meter
  (20 channels, EIS)





NEW: HTS27
1800kW-1500V-2000A



News

- DC-Source-Sinks from AINUO and NGI
- **AINUO ANEVH(F)** DC-Source-Sink-Modules
  - Up to 50 kW in 4HE
  - Up to 2250 VDC
- **NGI N35500** DC-Source-Sink-Modules
  - Up to 40 kW in 4HE
  - Up to 2250 VDC







Test Systems

HEIDEN Test System HTS17

Announcement: **HTS27-1800kW-1500V-2000A**

Can already be ordered, delivery in March next year (2027)

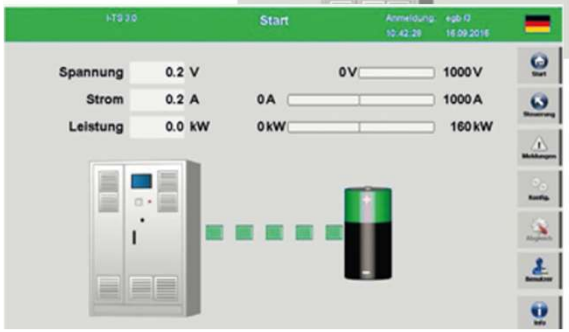
Test System HTS17



- DC Source-Sink System, regenerative
- Power from 35kW to 2.6MW systems
- Output voltage up to 1200 / 1500 V
- Output current up to 4000 A
- Current risetime < 1ms
- Control precision < 0.1% FS
- Option: Multi-channel up to 4 channels
- Applications:
  - Battery Test-System,
  - Fuel Cell System,
  - PV System,
  - Drive Train Test Benches







Test-System HTS27



- DC Source-Sink System, regenerative
- Power from 1.8MW to 3.6MW systems
- Output voltage up to 1500 V
- Output current up to 4000 A
- Current risetime < 1ms
- Control precision < 0.1% FS
- IP54, liquid cooled
- Applications:
  - Battery Test-System,
  - Fuel Cell System,
  - PV System,
  - Drive Train Test Benches

Cabinets and integrated systems

- Customer specific project design
- Turn-key, complete power solutions, uni- and bidirectional
- Preparation of future-compatible, scalable, extendable systems
- Protection classes IP20 (standard) and IP54 (on request)
- Application in Industry, R&D, Laboratories and Test Benches
- Pre-confectioned AC- and DC-cables (at high power: fixed connections)
- Security and monitoring concepts

DC Power Supplies, Regenerative Loads, Sink-Systems

HEA Series

HEA PS10000 Series

- 1.5 to 30kW in max. 4U and 60kW in max. 6U
- Extendable to up to 3.84MW in parallelization
- Up to 2000V output voltage
- Up to 1000A output current
- Integrated function generator for PV simulation, battery test and MPP-tracking
- Control of inner resistance
- Protection circuits (OVP, OCP, OPP, OTP)
- Available as source (PS, PSI) or regenerative sink (ELR)
- Auto-ranging for flexible power control
- Multiple interfaces available
- As water cooled systems available



HEA PU/PUL/PUB10000 Series

- Powerful performance in 4U (30kW) and 6U (60kW)
- Powerful Rack- and System-Performance
  - 19“-Rack with 42 U for a 300 kW system
  - System with up to 13 Racks with 64 devices with 60 kW each for High-power applications up to 3,84 MW
- Powerful efficiency
  - Less devices for a high-power system
  - Less space required
  - Less costs incurred



HEA BT20000 Series

- For testing and simulation of today and tomorrows battery technologies and -capacities, up to Recycling-processes.
- Flexible usage – in all areas from material R&D via battery development and production up to incoming goods inspection and second-life-recycling.
- Sufficient capacity for large battery systems as well: up to 64 Battery-Tester with 30 kW can test a system with a throughput up to 1,92 MW.
- Tests of high-voltage batteries with voltages up to 2000 V.



Highest Quality AC and DC Power Supplies

REGATRON TC.ACS and G5 Series

REGATRON TC.ACS and G5 Series

- Programmable AC and DC Source-Sink, from kW up to MW
- Highest Dynamic
- GRID-Simulator, Battery-Simulator and -Tester, Fuel-Cell Tester, RLC Load-Simulator, PV-Simulator



Application examples



Batterie-Test



Charger-Test



Grid-Simulation



Batterie-Simulation



Drive-Train-Test



EMC-Test

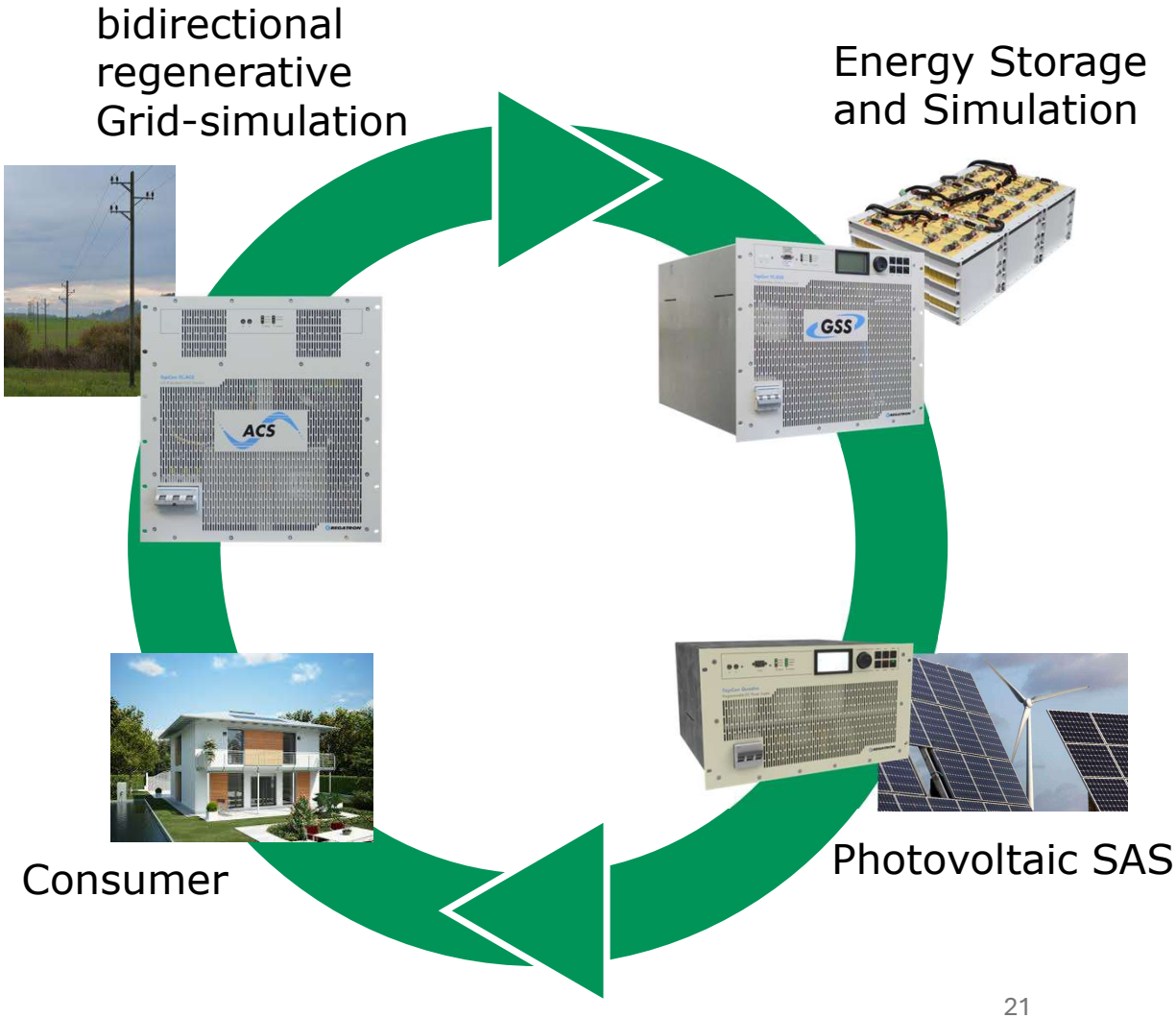
And more:

- Fuel Cell Simulation
- Fuel Cell Testing
- Electrochemical Impedance Spectroscopy Testing (EIS)
- Anti-Islanding Testing for Grid-Tied Power Generator Equipment
- PV-Simulation

Quelle: Regatron AG

TC.ACS bidirectional AC Source-Sink

- 30 or 50 kVA per Module
- Full 4-Quadrant Modes
  - Amplifier
  - Function Generator
  - RLC-Load
- 0 - 1000 Hz Base-Frequency
- > 5 kHz Modulation range
- High efficiency
- Multi-Level Inverter Topology



TC.ACS: Grid Simulator

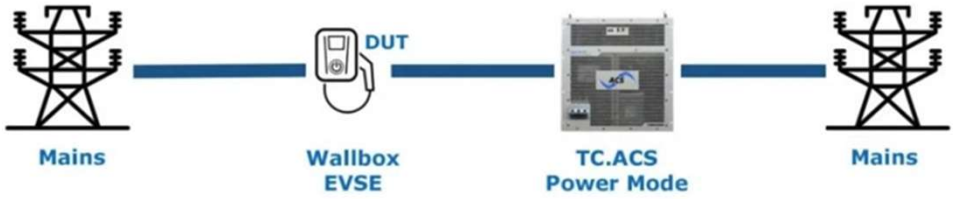
- 4 quadrant grid simulator
- 30 and 50kW modules
- up to 2 MW systems
- 4-chanel power amplifier,
  U- or I- controlled
- Frequency range DC to 1kHz,
  bandwidth 5kHz
- RCL load mode

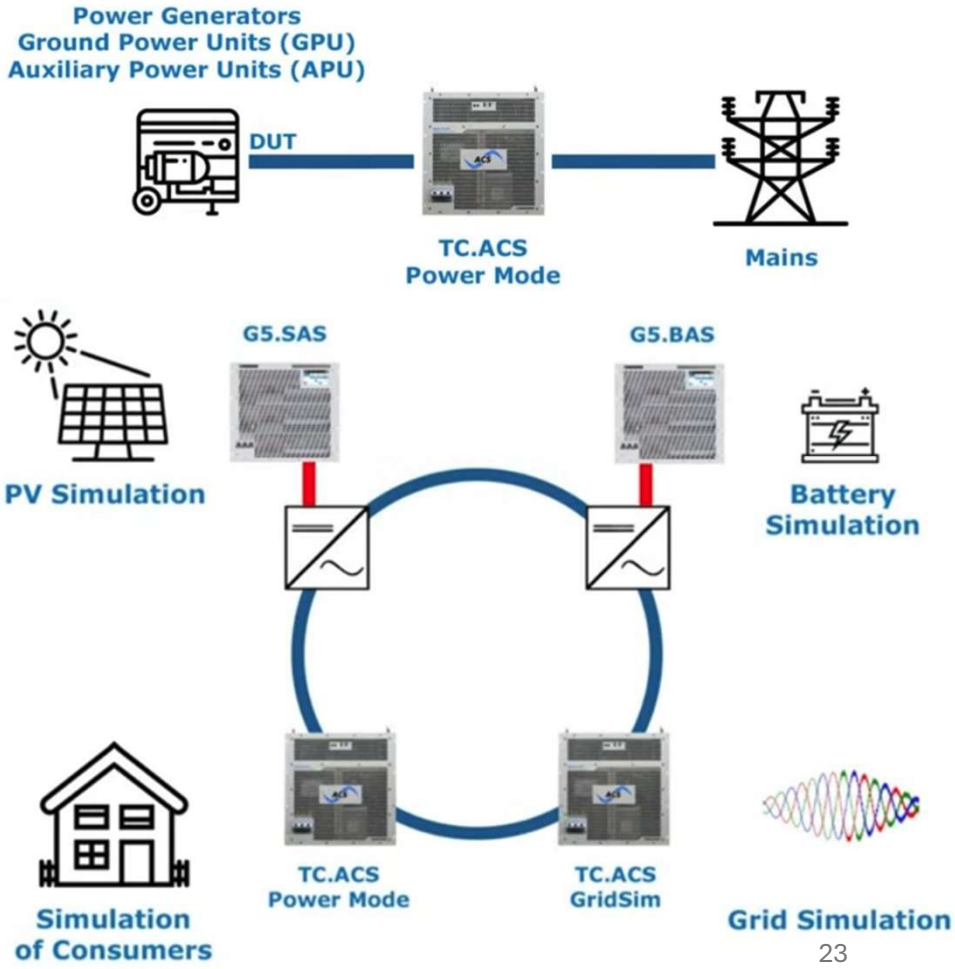


TC.ACS Applications

- Grid Simulation
- Testing of Generators, Power Units,
- OBC Testing
- PV and Battery Testing and Simulation





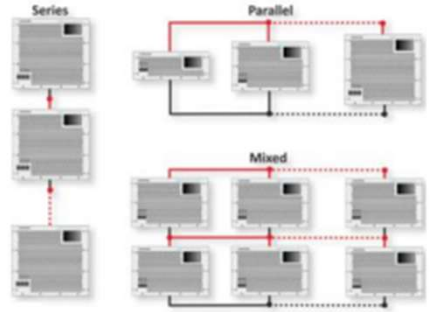


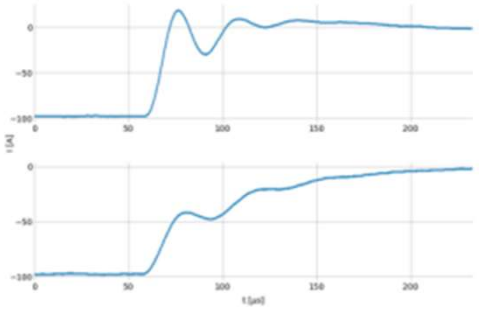
G5 Features

Modularity
- Scalable from few kW up to 2000+ kW
- Expandable in small power steps of 9…27 kW
- Parallel-, Series- and Mixed-connections
- Asymmetric extension in parallel connection

DC Characteristics
- Auto ranging factor 3 for high voltage as well as low voltage, up to 2000+ A from one device
- 60 V version for SELV protection voltage
- Outstanding dynamic response in a range of 50…100 us
- Ripple modulation up to 10 kHz for EIS applications
- Short signal delays for P-HIL applications
- High precision
- Switchable output capacitance enabling optimized control power in CV- as well as in CC-controlled operation modes
- Adjustable ramps / adjustable control behavior to prevent undesired overshoots, analysis with G5.Control Software and integrated Digital Scope => Important for fuel-cell tests

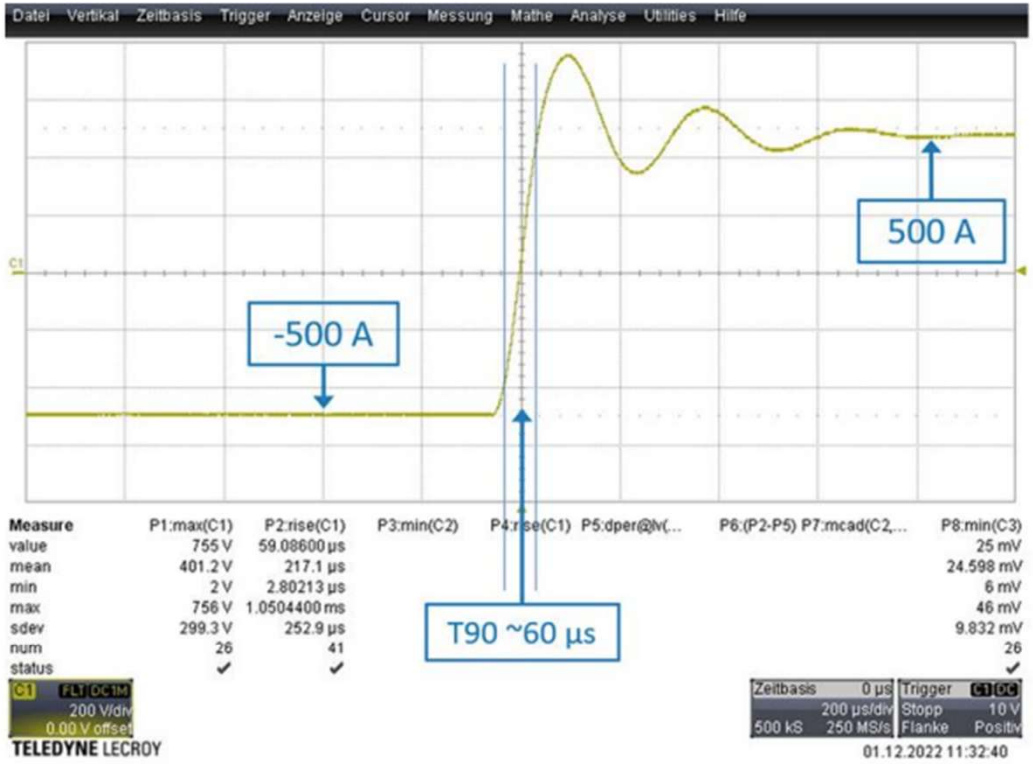
Safety / Interfaces
- Safety interface for PL c or PL e acc. EN ISO 13849
- Ethernet / USB / CANmp / EtherCAT
- Fast analogue interface for EIS / P-HIL applications
- G5.Control Operations and Service-Software



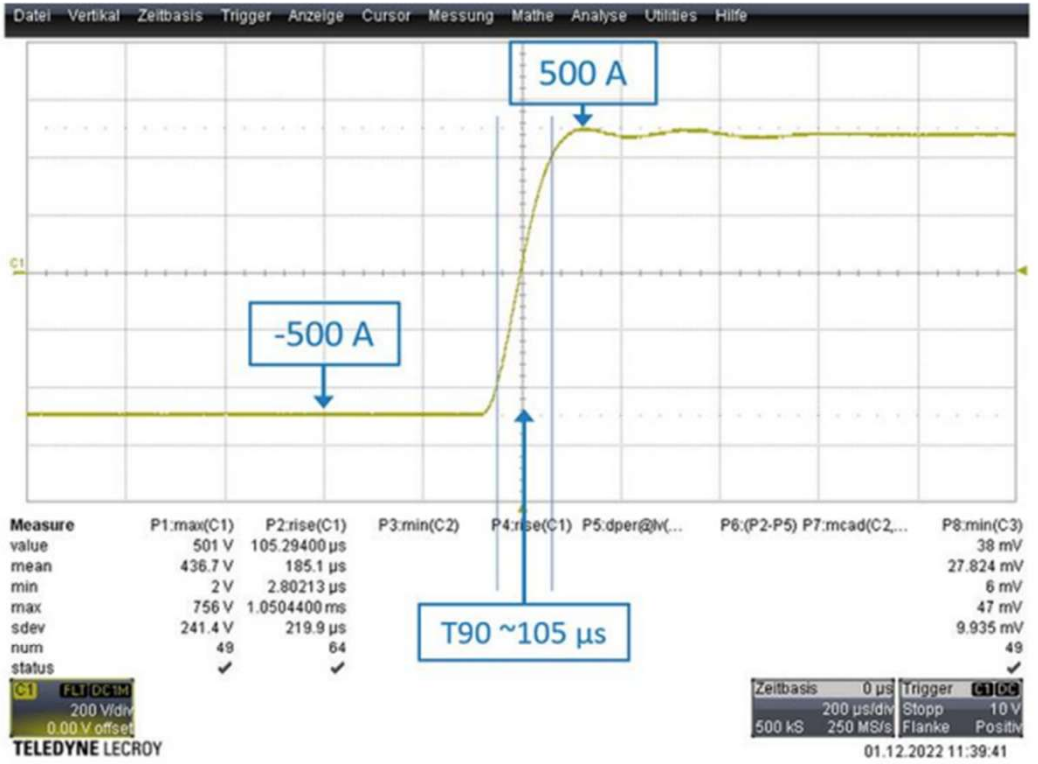


Quelle: Regatron AG

G5 Dynamics



Current step with best rise rate



Current step without overshoot for accurate battery testing with adapted controller parameters

Best rise rate with low inductance, short cables routed close together

Quelle: Regatron AG

High-Current Power Supplies

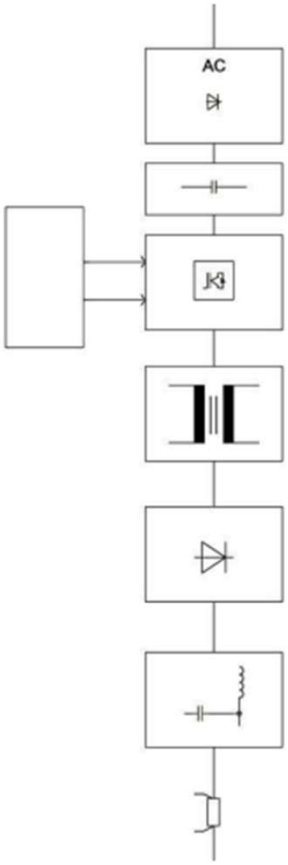
1138 Series
and
4606 Series

1138

- High-Current DC-Power Supply
- Water cooled
  DC power supply in switch-mode technology, designed for direct setup beneath electro-plating process, with minimum space requirements
- Variable power range
- The output power can be increased by parallel connection of multiple units to achieve best results in your application



Block diagram 1138

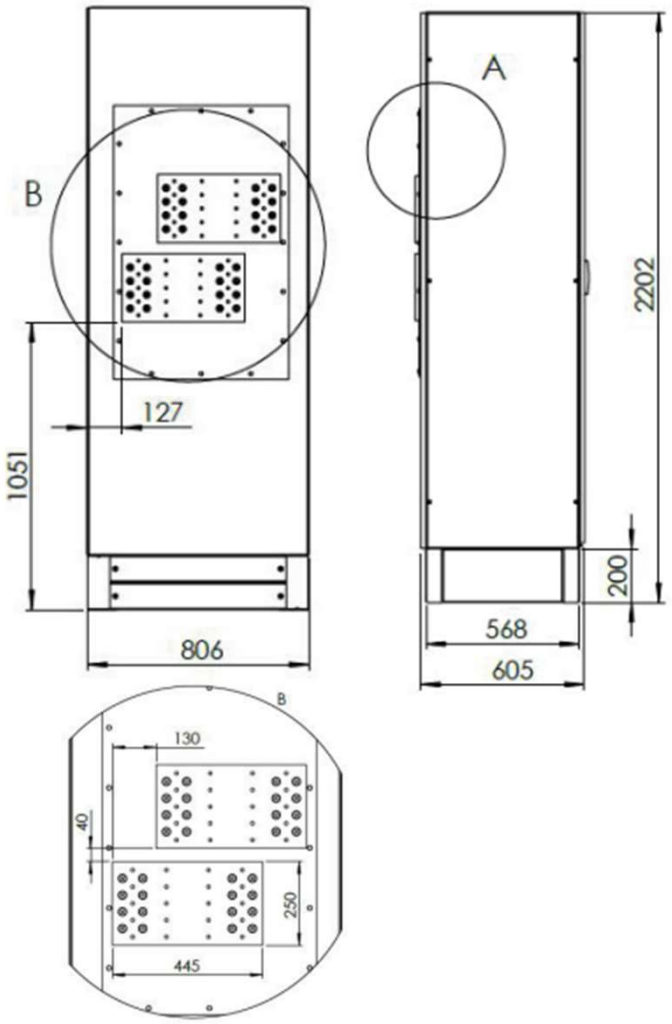


- Grid input and grid filter card
- Bridge rectifier (B6)
- DC-link capacitors
- Control card and IGBT´S with driver card
- Highfrequency transformer
- Output diodes
- Output choke
- Measurement-shunt for the feedback value for the control card

Dimensions & Cooling

- Width: 806 mm
- Height: 2202 mm
- Depth: 605mm

- Water cooling



4606

- DC-source with excellent CC-mode.
- Even with extremely low load resistances, up to and including short circuits, the current is precisely regulated and kept extremely stable.
- Applications in Power-to-X, electroplating applications, for low-resistance test objects such as contact tests, short-circuit tests, electric heaters, testing of ropes and other workpieces such as sheet metal, etc.
- Design for 24/7 operation in industrial environment
- 19“-rack modules







AINUO

Bidirectional DC Power Supplies

High power, High current, High voltage.

High power density.

Features

- Source-sink power supplies up to 30 kW in 3U and up to 50 kW in 4U standard enclosures, bidirectional power flow with automatic, seamless switching in both directions.
- Integrates high-frequency PWM rectification and bidirectional DC/DC technology, eliminating the noise of conventional power supplies and enabling near-silent operation.
- Higher power density, more compact design, and faster speed.
- Feedback efficiency up to 95% with outstanding energy savings and environmental benefits.
- Voltage range: Covers 7 voltage levels from 0 V to 2250 V – the widest range in the industry – thanks to a unique high-voltage series connection.
- Features an integrated function generator for producing arbitrary waveforms.
- Includes integrated voltage curves according to DIN 40839, ISO 16750-2, and ISO 21848 (optional).
- Features an electronic load function with various load modes such as CV, CC, CP, CR, CV+CC, CV+CR, CC+CR, and CV+CC+CP+CR.
- Can simulate the output characteristics (fill factor) of various solar batteries.





Model overview



- 5 - 50kW
- Up to 2250 VDC
- Up to 1020A
- 3HE and 4HE

80V-Modell	Spezifikation	Gehäuse
ANEVH80-680(F)	80V / 680A / 20kW	19” 4U
ANEVH80-1020(F)	80V / 1020A / 30kW	19” 4U

100V-Modell	Spezifikation	Gehäuse
ANEVH100-170(F)	100V / 170A / 5kW	19” 3U
ANEVH100-340(F)	100V / 340A / 10kW	19” 3U
ANEVH100-510(F)	100V / 510A / 15kW	19” 3U

300V-Modell	Spezifikation	Gehäuse
ANEVH300-75(F)	300V / 75A / 5kW	19” 3U
ANEVH300-150(F)	300V / 150A / 10kW	19” 3U
ANEVH300-225(F)	300V / 225A / 15kW	19” 3U
ANEVH300-225(F)	300V / 225A / 21kW	19” 3U
ANEVH300-300(F)	300V / 300A / 30kW	19” 3U
ANEVH300-450(F)	300V / 450A / 50KW	19” 4U

500V-Modell	Spezifikation	Gehäuse
ANEVH500-40(F)	500V / 40A / 5kW	19” 3U
ANEVH500-80(F)	500V / 80A / 10KW	19” 3U
ANEVH500-120(F)	500V / 120A / 15KW	19” 3U
ANEVH500-160(F)	500V / 160A / 21kW	19” 3U
ANEVH500-240(F)	500V / 240A / 30kW	19” 3U
ANEVH500-390(F)	500V / 390A / 50KW	19” 4U

750V-Modell	Spezifikation	Gehäuse
ANEVH750-25(F)	750V / 25A / 5kW	19” 3U
ANEVH750-50(F)	750V / 50A / 10KW	19” 3U
ANEVH750-75(F)	750V / 75A / 15KW	19” 3U
ANEVH750-120(F)	750V / 120A / 21kW	19” 3U
ANEVH750-180(F)	750V / 180A / 30kW	19” 3U
ANEVH750-300(F)	750V / 300A / 50KW	19” 4U

1000V-Modell	Spezifikation	Gehäuse
ANEVH1000-40(F)	1000V / 40A / 10kW	19” 3U
ANEVH1000-80(F)	1000V / 80A / 21kW	19” 3U
ANEVH1000-100(F)	1000V / 100A / 30kW	19” 3U
ANEVH1000-150(F)	1000V / 150A / 50kW	19” 4U

1500V-Modell	Spezifikation	Gehäuse
ANEVH1500-40(F)	1500V / 40A / 15kW	19” 3U
ANEVH1500-60(F)	1500V / 60A / 21kW	19” 3U
ANEVH1500-80(F)	1500V / 80A / 30KW	19” 3U
ANEVH1500-130(F)	1500V / 130A / 50KW	19” 4U

2250V-Modell	Spezifikation	Gehäuse
ANEVH2250-25(F)	2250V / 25A / 15kW	19” 3U
ANEVH2250-50(F)	2250V / 50A / 21kW	19” 3U
ANEVH2250-60(F)	2250V / 60A / 30kW	19” 3U
ANEVH2250-100(F)	2250V / 100A / 30kW	19” 4U

NGI

Bidirectional DC Power Supplies

High power, High current, High voltage.

High power density.

Features

- High power density, up to 42 kW output power in a 3U package
- Wide output range, one unit can be used as a multi-system
- Fast dynamic response, voltage rise and fall time ≤ 5 ms
- Voltage accuracy: 0.02% ± 0.02% of full scale
- Current accuracy: 0.1% ± 0.1% of full scale
- CC and CV priority, suitable for all types of devices under test
- Master/master parallel operation up to the MW range
- Load mode support for CC/CV/CP/CR
- Battery simulation, charge/discharge test, sequence test, waveform function, etc.
- PV array I-V characteristic simulation (optional)
- 6.8-inch LCD display for clear test information
- Standard with LAN/RS232/RS485/CAN communication
- Supports Modbus RTU, SCPI and CANopen protocols
- Integrated function generator



Modellübersicht



- 14 – 42kW
- Up to 2250 VDC
- Upt to 240A
- 3HE

360V-Modell	Spezifikation	Gehäuse
N35514-360-80	360V / 80 A / 14kW	19” 3U
N35522-360-160	360V / 160 A / 22kW	19” 3U
N35532-360-240	360V / 240 A / 32kW	19” 3U
N35542-360-240	360V / 240 A / 42kW	19” 3U

500V-Modell	Spezifikation	Gehäuse
N35514-500-65	500V / 65 A / 14kW	19” 3U
N35522-500-130	500V / 130 A / 22kW	19” 3U
N35532-500-180	500V / 180 A / 32kW	19” 3U
N35542-500-195	500V / 195 A / 42kW	19” 3U

750V-Modell	Spezifikation	Gehäuse
N35514-750-65	750V / 65 A / 14kW	19” 3U
N35522-750-130	750V / 130 A / 22kW	19” 3U
N35532-750-180	750V / 180 A / 32kW	19” 3U
N35542-750-195	750V / 195 A / 42kW	19” 3U

1000V-Modell	Spezifikation	Gehäuse
N35528-1000-65	1000V / 65 A / 28kW	19” 3U
N35532-1000-80	1000V / 80 A / 32kW	19” 3U
N35542-1000-80	1000V / 80 A / 42kW	19” 3U

1500V-Modell	Spezifikation	Gehäuse
N35522-1500-60	1500V / 60 A / 22kW	19” 3U
N35532-1500-60	1500V / 60 A / 32kW	19” 3U
N35542-1500-65	1500V / 65 A / 42kW	19” 3U

2000V-Modell	Spezifikation	Gehäuse
N35522-2250-60	2250V / 60 A / 22kW	19” 3U
N35532-2250-60	2250V / 60 A / 32kW	19” 3U
N35542-2250-65	2250V / 65 A / 42kW	19” 3U

AC Sources

PREEN AC Sources

AFV-P and AFV-S AC-Sources

- Compact 19“ design and high-power density 600VA to 2.500VA
- Single phase with AC and DC output voltages
- AC-voltage ranges of 0-310V and DC 0-420V
- Output frequency 15 to 1000Hz
- Ideal for high inrush-currents up to 9x nominal current
- Programmable start- and end-point of phase-angle 0 to 359°
- STEP and RAMP functions: ideal for frequency and voltage ramps
- Transient programming for simulation of grid failures (acc IEC61000-4-11/14/28)



AFV-Plus AC-Sources

- Turn-key cabinet-system
- Wide output-range 10kVA up to 2.000kVA available
- Single or three-phase outputs available
- AC output voltages 0-310V (optional 400V or 600V)
- Frequency ranges:
  45-500Hz[A], 45-120Hz[B] or 300-480Hz[C]
- Simulation of unsymmetric loads
- Simulation of phase shifts
- Soft-start function for reduction of inrush currents for engine starts
- Optional overload capability up to 200% for 2 sec.



High Precision Loads

Höcherl und Hackl

DC und AC Lasten

ACL AC/THREE-PHASE LOAD

- Frequency range up to 1,000 Hz
- Single and three-phase devices
- Parallel, star or delta connection
- Input voltage 280 V or 500 V
- Single-phase power from 500 ... 21.000 W, 3-phase power from 3 x 1.400 ... 3 x 8.400 W
- User interface with 4.3“ touchscreen, Operation by mouse
- Operating modes CC, CR, CP, CV
- Arbitrary current waveforms, uninterrupted waveform change
- Synchronization to load input, line or extern
- Adjustable crest factor up to 4, automatic amplitude correction
- Phase shift combined with crest factor, phase cut from -180 ... 180°
- Harmonics up to 25th order, even and odd

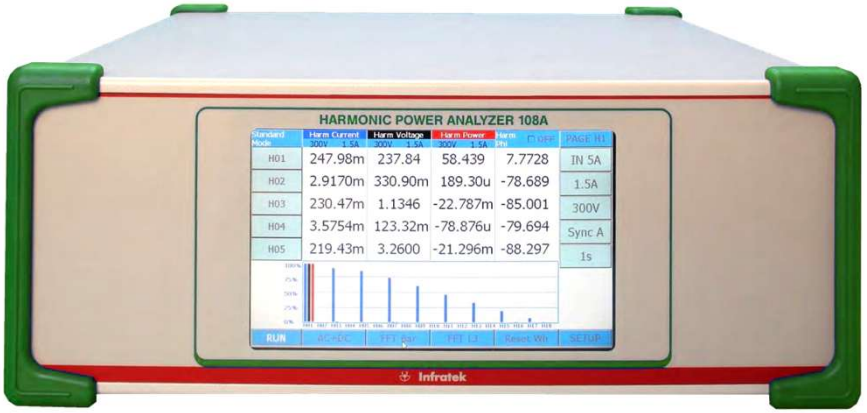


Power Analyzers

INFRATEK PA Series

PA106A Poweranalyzer

- Suitable for frequency converter / power section
- Large and bright display with representation of up to 10 / 40 values
- Scope function and bar display of the harmonics 1…99
- Measuring range: DC-1 MHz, 1.5 mA…40 A
- 0.3 V…1,000 V
- Accuracy: 0.1 % and 0.05
- Interfaces: IEEE-488, RS232, USB, LAN
- Analogue outputs and inputs
- PC Software for Windows



Safety Tester

Ainuo AN Series

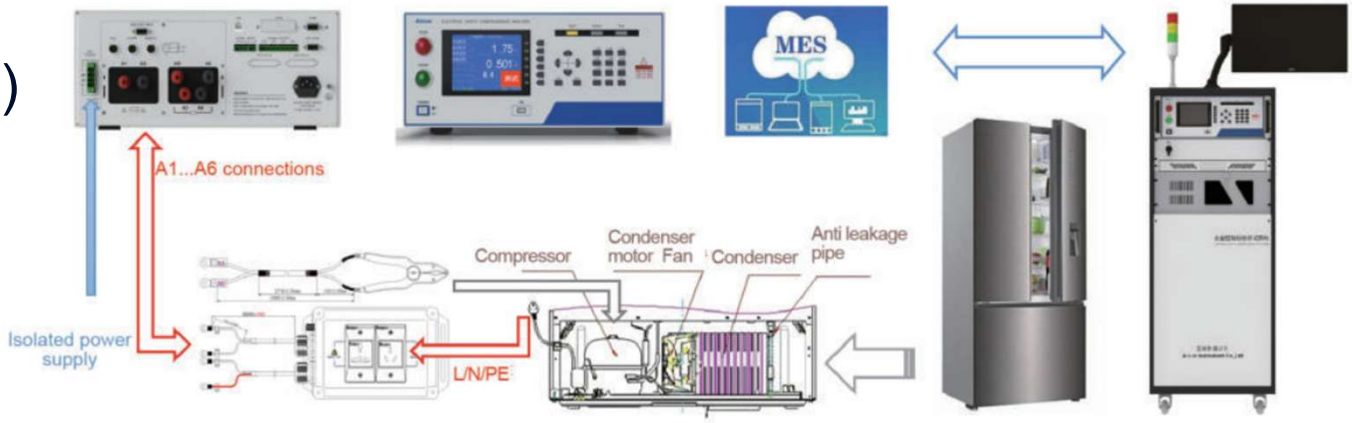
AN Series

- AN9640H(F), AN9651H(F), AN9651H-C(F)
- 7 in 1: ACW / DCW / IR / GB / LC / PW / ST
- High accuracy: 1% for safety testers, 0.2% for power testers
- High speed: GB and ACW / DCW / IR parallel operation, fast switching, fast testing
- Automation interfaces: RS232 / LAN / USB / BARCODE / PLC / ALARM / REMOTE
- Integration: Optional industrial PC and ESRS for data storage and integration into an MES



AN Series Applications

- Safety of household appliances and similar electrical equipment (GB4706.1/IEC60335-1)
- Audio, video, information technology, and telecommunications equipment (GB4943.1/IEC62368-1)
- Safety requirements for electrical equipment for measurement, control, and laboratory use (GB4793.1/IEC61010-1)
- Lighting equipment (GB/T7000.1/IEC60598-1)
- Charging systems for electric vehicles (GB/T18487.1)



Ground Power Units

HEIDEN GPU Series

Ground Power Units (GPUs)



- 1100
  - Heavy-duty case in V2A steel
  - Up to 800A starter current
  - powder coated
  - Temperature range -30°C…+40°C
- 1101
  - Easy to move
  - 100Ah for 5 starts and more
  - integrated 3000W charger



- 1104
  - Heavy-duty case in V2A steel
  - Up to 1500A starter current
  - Temperature range -30°C…+40°C
- 1105
  - 60Ah LiFePo Battery
  - Up to 800A starter current
  - Grid-indepedent and mobile



References


BMW
BOSCH
Continental
The Future in Motion
DELPHI
HELLA
DESY.
DLR
EADS
eurocopter
an EADS Company
FhG
HILTI
HÜCO
infineon
Miele
PTB
SIEMENS
MTU
Aero Engines
STILL
ZF
SMA
TERADYNE

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Website



heidenpower.com

Webshop



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Questions?

Thank you for your attention.

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