





#### WELCOME TO YOUR PARTNER

for individual solutions to your power requirements





# HEADQUARTER Altlußheim, Germany



## **HEADQUARTER**



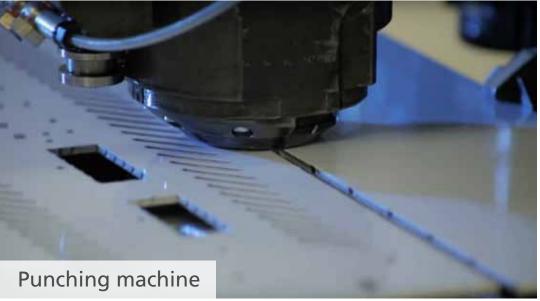








# **HEADQUARTER**









## ORGANIGRAMM

#### **Executive**

Eric Keim, Dipl. Engineer

Sales	Logistics	Development	Production	Administration	Department
Sales Manager Roland Kosmowski	Logistics Manager Andreas Wiesemann	Director of Development Herrmann Amtsberg	Head of Production Andreas Wiesemann	Area Accounting and human Resources Rolf Hermann  Area calculation costing	QS Officer Roland Kosmowski
Sales Markus Dick Carola Christ	Carola Christ  Carola	Power supplies Wolfgang Schmidtmar  LAB/HP + LAB/S Herrmann Amtsberg Sascha Jelinski  EAC + ELP + LAB Uwe Schneider  Conception and software Ulrich Grosse Stefan Puff	EAC/LAB/SL/SP+ELP Heiko Bloch Michael Heim Matthias Jacobi		
Order Processing Margit Immel Frauke Kneis			LAB/SM Loris Scarpaci Klaus Steiner	material Costing  Area IT support and	
Sales England Luca Fiore Randolph MC Donald			Power supplies Wolfgang Schmidtmar Oleg Smilyansky	backup Frank Kleiner Michael Schmidt	
Sales France François Lantelme  Sales Asia Seong-Kyu Lee			LAB/HP Helmut Steger Loris Scarpaci		
Young-Meen Choi  Sales China Li Xiaoke			Coilware Anette Zöller		
Sales Middle East Adnan Kolbasi			Metal processing and semi-finished stock Sabine Falke		
Distributors and OEM-partners in domestic and foreign			Component, material, stock Nadina Schobert		

## **EMPLOYEES**



# IN TOTAL 40 EMPLOYEES

- 1 in quality
- 5 in engineering
- 6 in administration
- 26 in production
- 2 trainees

#### **ENGINEERING / PRODUCTION**

#### HIGH VERTICAL INTEGRATION

- Our Own Engineering group with wide PSU experience
- Our Own in house Assembly lines
- Our Own sheet Metal production department
- Our Own magnetic winding production lines
- Our Own in house EMC/EMI laboratory
- MEANS FAST TIME TO MARKET!



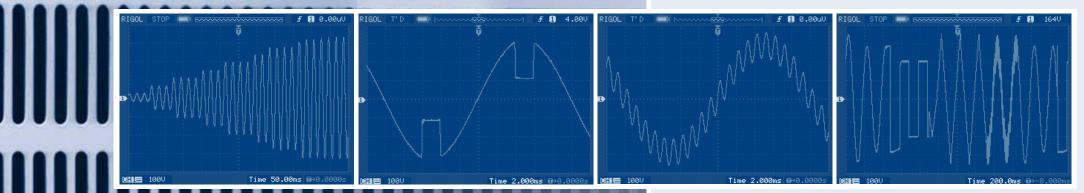




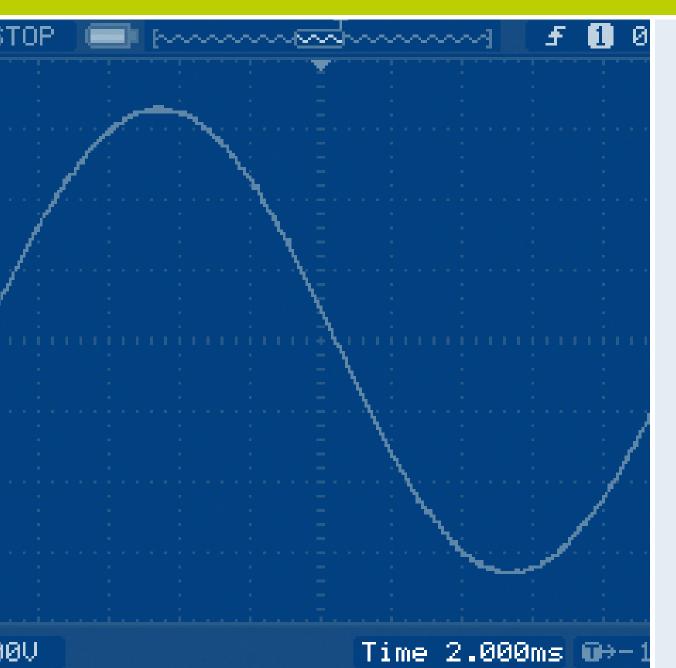
#### ELECTRONIC AC-SOURCES 250 - 36.000 VA



- Replication of 1 and 3-phase networks (worldwide)
- AC / DC operation
- Output voltages0 700 V AC / 1,000 V DC per phase
- Variable frequency of up to 2,000 Hz, sinus, square and triangle wave forms
- Maximum currents up to 2,000 A per phase
- Digital interfaces IEEE, RS-232/485,USB, LAN



## MOTOR-CONTROLLED AC-SOURCES 500 - 50.000 VA



- Motor control
- Controllable via potentiometer
- 19" insertion technology
- High output performance
- Digital display for voltage and current
- Analog interfaces 0 5 (10) VDC for setting and readback
- Also available as ATE version
- Digital interfaces IEEE, RS-232/485,USB, LAN
- Special versions upon request

## AC-SOURCE 15 kVA - 2.000 kVA



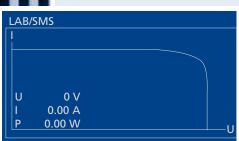
#### PRIMARY SWITCH-MODE DC SOURCES 500 W - 120.000 W

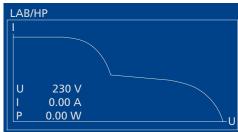


- Efficiency up to 94 %
- Compact design
- Active parallel mode
- Simple front panel operation
- Constant current, voltage, resistance and power operation
- VI, VIP, VIR Modes & Simulation of PV-Arrays
- Script control: process programming and booting from memory card
- User defined output characteristics created via memory card or digital interface
- Digital interfaces IEEE 488.2 (GPIB),
   RS-232/485, USB and LAN









#### PRIMARY SWITCH-MODE DC SOURCES 500 W - 120.000 W

- Galvanically isolated analogue Interface 0 5 V or 0 – 10 V (user selectable)
- Power increased easily through modular design:
   Parallel, series, matrix or multiload master-slave-operation
- Storable V/I wave forms (e.g. for PV simulation and sequential control)
- Large graphical display with clear indication of actual output values
- Special versions available on request
- Data logging function: Output values can be saved at adjustable intervals to a memory card
- Stand-alone test rig possibility with script operation in combination with data logging function
- Adjustable OVP, Vmax and Imax in addition to normal output voltage and current limit settings



## DC-SOURCES & SINKS with regenerative capability

- Full bidirectional operation made possible by grid-tie source sink technology
- Product line with various output voltages:60, 100, 150, 300, 600, 800, 1.000, 1.200, 1.500 VDC
- Constant voltage (0 to 100 %), constant current (0 to 100 %), constant power operation (5 to 100 %) with automatic and fast crossover as well as mode indication and internal resistance simulation
- Compact design featuring integrated EMI and sine filters
- Power categories from 5 to 30 kW are available for each nominal output voltage
- Primary switched and galvanic isolated power supplies
- Extended product range with various extras and optional accessories



## DC-SOURCES & SINKS with regenerative capability



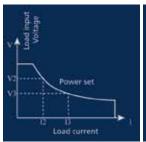
- Power increased easily through modular design: Parallel, series, matrix or multiload master-slave-operation
- Low cost while maintaining high efficiency by applying innovative IGBT and transformer technology
- Full digital control and regulation
- CE conformity
- Smart functions for monitoring
- Easy to use operating controls
- Lightweight
- Small footprint
- Air-cooling enclosures
- Customized designs
- Made in Germany

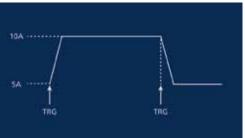
Bidirectional
High-Power DC Supply

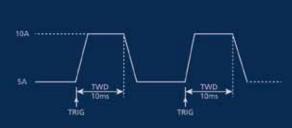
## **ELECTRONIC LOADS** 150 W - 200.000 W

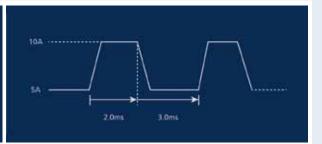


- 6 different operating types:CC, CR, CV, CP, CC+CV and CR+CV
- Protection against overcurrent, overvoltage, overload, excessive temperature and inverse polarity protection
- High-resolution display
- Programmable soft start depending on temperature and preset voltage
- Battery test and short-circuit function
- External trigger function, input and output
- Dynamic test, adjustable rise and fall times



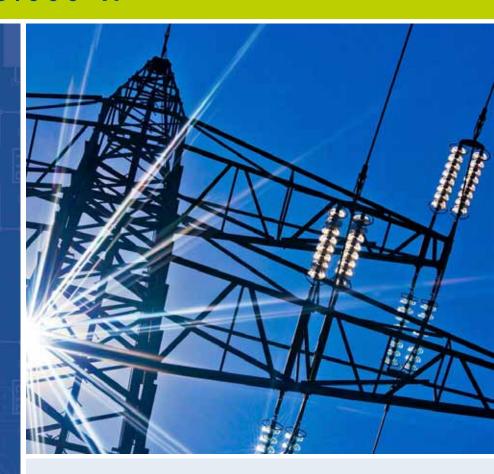






## POWER SUPPLIES 75 W - 5.000 W

- Compact design
- DC inputs
- Single output
- Overload and excess temperature protection
- I / U constant characteristic curves
- Temperature-controlled output
- Output floating
- Active power distribution (n+1)
- U and I programmable, 0 5 V or 0 10 V
- Up to 94 % efficiency
- Convection and fan-cooled
- High reliability
- Special versions upon request







## HIGH VOLTAGE 0,2 W - 10.000 W

- High-quality DC sources with minimal residual ripple, typically 0.01 %
- Constant U and I preset and readable
- 3 1/2-digit LED display for U and I
- Output is potential-free
- Best control data, U / I constant
- Operational mode display of constant voltage / constant current via LED
- Digital 12-bit interface : RS-232/485,IEEE 488, USB
- Also available as ATE device









## INVERTER 50 - 48.000 VA



## HIGH PERFORMANCE DC SOURCES up to 1 MW



#### LABORATORY POWER SUPPLY UNITS customised

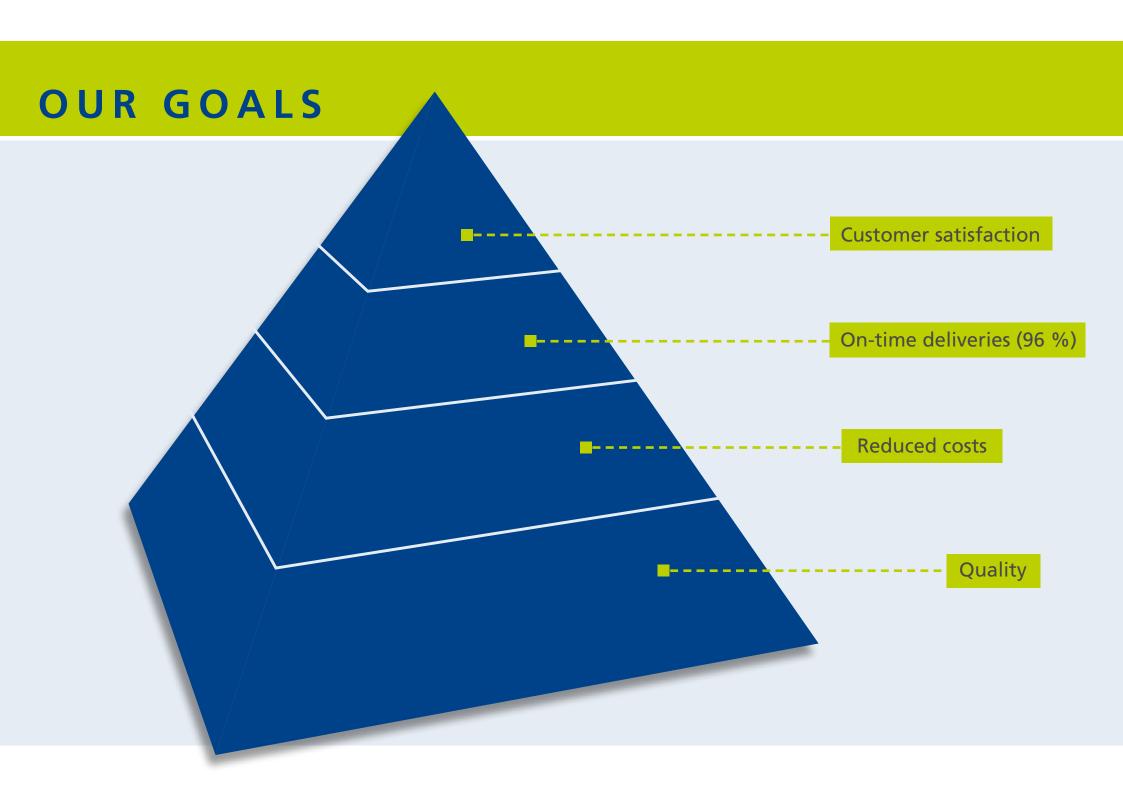


We want to offer you laboratory power supply units which are tailored exactly to your needs. Starting from an order quantity of one, at no additional cost!

Modifications can be made to the following parameters:

- Voltages
- Current
- Frequencies
- Individual functional adjustments
- Rise/fall times
- Output ripple
- Load conditions/applications
- Interfaces
- Signal shapes
- Temperature ranges
- Mounting options

**Customised laboratory** power supply units without additional costs? from 1 unit M POSSIBLE



#### ISO 9001 CERTIFICATION



#### **DEVELOPMENT | PRODUCTION | SALES**

AC- and DC-Sources | Electronic loads Inverters | Power Supplies DC-Sources / Sinks with network feedback

Essential permits such as CSA, UL, VDE, TÜV etc. are issued quickly and flexibly by qualified personnel.

Approval procedures are carried out as part of development planning and thus do not negatively impact the production start.

Constant manufacture monitoring by accredited inspection centers and quality management according to ISO 9001 guarantee consistently high series quality.













#### **OUR REFERENCES**

- Aesculap, Tuttlingen
- Airbus Industries, HH
- Air Force, Holland
- Alcatel Dunkermotoren
- Artesyn, Frankfurt
- BASF, Ludwigshafen
- BHEL, Bophal Indien
- Bosch, Leinfelden
- Bosch, Plochingen
- Bosch, Stuttgart
- Bürkhard Werke,
- Charlottes Web, Israel
- Diehl, Nuremberg
- ETAS, Stuttgart
- Erricson, Sweden
- FRIWO, Ostbevern

- GE Power Controls
- Hekatron, Sulzburg
- Heidelberger Druck, HD
- Heitec, Erlangen
- IBM, Berlin
- Jen-Optik Laser, Jena
- Jen-Optronik, Jena
- KIT, Karlsruhe
- Lufthansa Technik, Hamburg
- Lufthansa, Frankfurt
- MPI/XP, CH-Baden
- Noske-Kaeser, New Zealand
- Nortelco, Norway
- OCE, Poing
- Pepperl&Fuchs, Mannheim
- Philips, Eindhoven

- Quel, Alzenau
- Rhode & Schwarz
- Rademacher GmbH&CoKG
- Siemens, Chemnitz
- Siemens, CH- Volketswil
- Siemens, Krefeld
- Spectro, Cleves
- Technical Trading, Syria
- Teldix, Heidelberg
- Tyco, Viernheim
- Ultra X Laborgeräte, Lage
- Varta, Ellwangen
- Wagner Brandschutzsysteme
- XP Power GmbH, Bremen
- Yokogawa, UK
- Zeiss, Oberkochen