

[www.eps-germany.de](http://www.eps-germany.de)  
*We've got the Power*



**Shortform Catalogue**  
*2011*

Die ganze Welt der Stromversorgung  
*The Whole World of Power Supply*

## The company profile

### The whole world of power supply

The whole world? We think so. We are now in a position that we will supply you with the optimal Power Supply in every case – from our own production, from the product ranges of our worldwide suppliers or as a tailor-made customized application.

Our offer is divided into three closely connected ranges.

1

2

3

#### 1. Customized

As specialists for power supplies we have developed consistently our services. You can profit from our experience for years of our development and directly attached production in the manufacture facility Chemnitz/GERMANY. Here we offer you customized Power Supplies, complete devices and plants up to 500kW. We fulfil highest quality requirements and work with the newest technologies. We emphasise in energy efficiency, that means we are optimizing the degree of efficiency and provide a mains feedback.

#### 2. Standard Units

EPS has established itself for many years as a reliable and professional partner for businesses and institutions involved in research, development and production. And we will continue to be so. All our units set standards when it comes to quality and safety, as well as in the price/performance ratio. Regarding the optimal selection of AC/DC Power Supplies, AC/AC Frequency Converter, DC/DC Converter, Electronic Loads, DC/UPS- and Charger units – we are your partner.

#### 3. Applications

For several years now we offer complete systems including all the tooling as they are used in individual applications for test departments, test laboratories or quality units on the shop floor. Clients use our know-how in applications for automatic test systems, test rigs for endurance, measuring equipment for electrical tests and quality control systems.

The spectrum of our setups ranges from PC driven power source adapters to complex test systems with camera, material testing machine and robots.

Proudly made in Germany.

### Customer orientation at EPS

#### Before you buy

– Advice? No problem. We'll come and give a presentation.

#### After you buy

– Our after-sales support team will be happy to help!

#### Always

– Praise, criticism, ideas? Talk to us.

## EPS – customer orientation, which makes the difference

### 1. Flexible:

You decide the output, we scale the unit to match.

### 2. Economic:

The price/performance ratio ensures ultra-fast amortisation.

### 3. Price-stable:

You can rely on our prices. For a whole 12 months. (\*)

### 4. Innovative:

All units conform to the very latest state of the art.

### 5. Perfectly finished:

Quality components + precise finishing = above-average expected life.

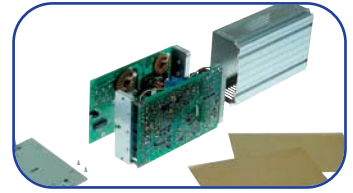
### 6. Sophisticated in design:

Form and function in perfect harmony.

(\*) excluded currency fluctuations

## Projection – Development – Production – Test

There are a lot of good reasons why you might need customized Power Supplies. Available standard Power Supplies may not have suitable output values (Power, Voltage, Current). Maybe you have special requirements, like fuse protection, overload protection or safeguards in the case of electrical malfunction. Maybe you need a special size or shape.



Regardless of the specifications of your power supply: We can find a solution for you.

There are plenty of good reasons to choose EPS Power for your power conversion solution. Here are three of them.

### 1.) Expertise

From helping you develop spec sheets, optimizing your requirements and designing and manufacturing any Power Supply you need, our experience for years means we have the expertise you need. And our service team will always be there to take care of your EPS power products for as long as you use them.

### 2.) Quality that's "Made in Germany"

That means quality you can see and feel – from the very first consultation to the finished product. Each unit undergoes stringent final testing. All test data is then logged and archived which means we can offer 100% traceability should a problem arise with one of your devices.

### 3.) Technology

The most advanced power conversion solutions based on microcontroller technology. The highest efficiency and lowest power loss. Long life and high reliability – with a guarantee.

Also we can offer you customized medical Power Supplies, fulfill the increasing requirements of the medical technology. Many of our products are examined for lower ground fault and higher isolation, in order to ensure necessary medical security.

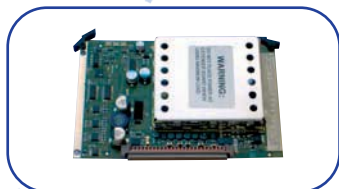
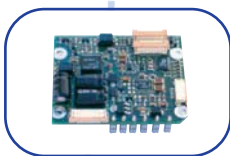
Our Power Supplies are intended for applications in the low capacity range, in the tooth-medical range and for applications of laboratories such as dialysis devices, control units, instrument equipment as well as for control of infusion pumps. There are devices in the Power range of 20 - 5000 W with up to four outputs available. All Power Supplies are primary switched, have a very high efficiency and offer complete medical security in accordance with EN60601/UL2601.



**DC Power Supply  
(CV/CC/CP) 20–5000W**



- For specific electrical and/or mechanical requirements
- Special terms and conditions
- Protection of product identity
- Unique position by licence
- Application- specific Power Supplies and complete devices
- Option: Analog and digital interfaces
- Especially for specific industrial and **medical applications**



**AC/AC  
Frequency Converter  
(CV/CF)  
5–500kVA**



- Output voltage up to 1000VAC
- Output frequency from 16 $\frac{2}{3}$ Hz–400Hz
- 1,5-times Overload
- Parallel operation
- 3 operating methods (start-up, determine operation, continuous operation)
- Touchscreen-display
- Standard: RS232, Option: Analog, CAN, Ethernet
- **Option:**
  - **Feed-back unit** up to 100% (Energy Efficiency)
  - **Also as DC-Power Supply, DC and AC Load, DC/AC Inverter, Battery charger (-Testsystem) and UPS available**
- Especially for Avionic, Mains simulation, Engine test stand, Feed-back from solar plants, Peak load illustration, regulated load resistance for battery test with feed-back

**Energy efficiency**



Mains feedback means that electrical energy can be returned to the AC mains supply by using a multi-quadrant technique. Instead of electrical energy being dissipated as heat it is returned to the AC supply by a phase synchronous inverter which replaces the load resistor.

### DC Power Supply (CC/CV) 1800–12000W

[ EK/MP SERIES ]

- Output current up to 350ADC
- Parallel and serial operation (Master-Slave)
- Output switch OFF
- Ambient air temperature up to 50° C at full load



- Tabletop incl. 19" kit (excepting 9 U devices)
- Standard: Analog, Option: CAN Bus, GPIB/RS232, USB incl. Software
- Especially for the highest claims in the laboratory- and system appliance

### Programmable DC Power Supply with Multi-Output-Range (CV/CC/CP/CR) 1500–9000W

[ EK/ARI SERIES ]

- Programmable by the user-friendly menu navigation on the front side
- **Integrated function generator** user specified characteristics can be defined according to the function
- Function sequences or user profiles can be filed and documented
- Integrated monitoring functions with adjustable delays
- Excellent form factor



- Parallel and serial operation
- Up to 30 units can be controlled by only one USB or RS232 address
- Standard: Analog, Option: CAN Bus, GPIB, AGP, USB and RS232 + Software
- Option: Internal resistance regulation, 2 Quadrant Module
- Especially for complex applications which can be realised very fast and simply without PC

### DC Power Supply with Multi-Output-Range (CV/CC/CP) 1500–9000W

[ EK/AR SERIES ]

- **Output Voltage up to 750VDC**
- Flexible power conception
- Parallel and serial operation
- Value fix: functionality of Fixed Voltage
- Standard: Analog, Option: CAN Bus,

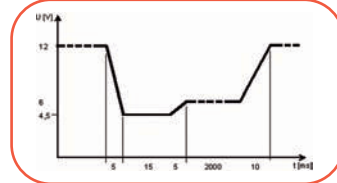


- GPIB/RS232, USB incl. Software
- Option: 2 Quadrant Module
- Especially for the Automotive area, but also for laboratories and system application

### Two Quadrant Module according to DIN 40839 Automotive

[ EK/ZH SERIES ]

- Integrated active resistance (Source-Sink-function) for Pulse power up to 2400W
- Enabled extra quick function characteristic and flanks
- Simulation of the **automotive electronics characteristics according to DIN 40839**, variations of this, as well as other characteristics
- Optional for EK/ARI, EK/AR, EK/LPI and EK/LP Series
- Optional: FET Switch for low Power dissipation to generate fast and rectangular ramping



### DC Power Supply (CC/CV/CP/CR) 640–3000W

[ EK/LPI 8000-2U SERIES ]

- **Output voltage up to 720VDC**
- Integrated function generator user specified characteristics can be defined according to the function
- Function sequences or user profiles can be filed and documented
- Alarmmanagement: alarms and warnings could be acoustic signalized
- Parallel and serial operation (Master-Slave)



- Up to 15 different units can be connected and controlled by GPIB
- Standard: Analog, Option: CAN Bus, GPIB, AGP, USB and RS232 + Software
- Option: Internal resistance regulation, 2 Quadrant module
- Especially for complex applications which can be realised very fast and simply without PC

### DC Power Supply (CC/CV/CP) 640–3000W

#### [ EK/LP 8000-2U SERIES ]

- Output voltage up to 720 VDC
- Parallel and serial operation (Master-Slave)
- Flexible regulated output stage (>650W)
- Storage of 5 different user profiles
- Up to 15 different units can be connected and controlled by GPIB
- Fine setting, Lock setting
- Compact 19", 2 U Unit
- Standard: Analog, Option: APG, GPIB, CAN Bus, USB and RS232 incl. Software
- Option: 2 Quadrant Module
- Especially for the highest claims in the laboratory- and system applications area



### Programmable DC Power Supply (CC/CV/CP/CR) 320–1500W

#### [ EK/LPI 8000 SERIES ]

- Programmable by the user-friendly and interactive menu navigation on the front side
- Integrated function generator user specified characteristics can be defined according to the function
- Function sequences or user profiles can be filed and documented
- Alarmmanagement: alarms and warnings could be acoustic signaled
- Parallel and serial operation
- (Master-Slave)
- Up to 15 different units can be connected and controlled by GPIB
- Standard: Analog, Option: CAN Bus, GPIB, AGP, USB and RS232 + Software
- Option: Internal resistance regulation, 2 Quadrant Module
- Especially for complex operations which can be put into practice very fast and simply



### DC Power Supply (CC/CV/CP) 320–1500W

#### [ EK/LP 8000 SERIES ]

- Space-saving, only 90mm wide Tower
- Parallel and serial operation (Master-Slave)
- Flexible regulated output stage (>650W)
- Saving of 5 different user profiles
- Up to 15 different units can be connected and controlled by GPIB
- Fine setting, Lock setting
- Standard: Analog, Option: APG, GPIB, CAN Bus, USB and RS232 incl. Software
- Especially for the highest claims in the laboratory- and system applications area



### Programmable DC Power Supply 320–1500W

#### [ EK/LPI 800R SERIES ]

- Programmable by the user-friendly and interactive menu navigation on the front side
- Alarm management
- Parallel and serial operation (Master-Slave)
- Standard: Analog, Option: CAN Bus, USB and RS232
- Option: only with analog interface (Series EK/LP800R)
- Especially for industrial operations



### DC 19" Power Supply according to DIN 41494/ 80–240W

#### [ EK/PI SERIES ]

- High efficiency up to 93%
- Single, double and triple Output (with auxiliary output)
- Remote sense
- External ON/OFF
- Parallel operation
- Option: ASF-Input (Current Share), Redundancy n+1
- Especially for the automation operations



## DC High Current Sources (CC/CV) 5–120kW

### [ EK/HC SERIES ]

- Output Voltages: 0–20V up to 0–900V
- **Output Currents: 0–3A up to 0–6000A**
- High efficiency >85%
- Regulation deviation <2%
- Ripple (300Hz) <2%
- Parallel operation
- Remote ON/OFF for DC output
- Standard: Analog, Option: RS485, RS232, Ethernet
- Options: **Watercooling**, Insulated analog amplifiers, Remote Sensing,
- External User Panel
- Especially for high power environment such as electroplating, industrial applications such as powering engines/starters and used in automatic end-of-line test systems



## DC/DC Converter 480–2000W

### [ EV/PC SERIES ]

- Modular concept
- Big input Voltage range
- „Hot-plug-in“ design
- High power density
- Integrated output decoupling from the DC-Bus
- Wide range of output Voltages
- 19" modular system



- EV/PC18 (1800W) with digital display for all equipment parameter
- Standard: CAN-Bus, Option: Control and monitoring unit incl. Software
- Option: Active Current share
- Especially for all DC applications in industry- and telecom systems

## DC/DC Converter 100–500W

### [ ZT/GW SERIES ]

- Parallel and n+1 redundant operation
- Wide input Voltage range
- Over Voltage- and over Current protection at the input side
- Over Voltage protection at the output side
- Terminal connection
- Very good form-factor
- Wall-/DinRail-/19"-System possible



- Option: Active Current share, Signal outputs, mounting plate, ruggedized
- Especially for operations in the engineering of automation and Power Supply as well as in the tooling and equipment construction

### AC/AC 400Hz Frequency Converter (CV) 5–315kVA

#### [ MS/FC SERIES ]

- In- and Output 3-phases
- Output pure sine wave
- Output ON/OFF-switch
- Remote control ON/OFF
- **2-times Overload**
- Parallel operation possible
- Ambient air temperature  $-25^{\circ}\text{C}$  until  $+50^{\circ}\text{C}$
- MIL-STD-704E Standard
- Option: Distortion on the input (current) 10%
- Especially for the application area **Avionic**



### AC/AC Fixed Frequency Converter (CV) 40–60kVA

#### [ MS/SQ SERIES ]

- In- and Output 3-phases
- Output pure sine wave
- Output frequency 50Hz or 60Hz
- 1,5-times Overload
- Parallel operation possible
- Option: Isolating transformer, Output power up to 400kVA
- Especially for the supply of equipment in the production- and testing technology



### AC/AC Fixed Frequency Converter (CV) 10–30kVA

#### [ MS/COM SERIES ]

- **In- and Output 3-phases or 1-phase**
- Output pure sine wave
- 1,5-times Overload
- Output frequency 50Hz or 60Hz
- **Compact floor-mounted model** (low weight)
- Option: UPS, Isolating transformer
- Especially for the supply of electrical installations and electronic loads



### AC/AC Fixed Frequency Converter (CV) 5,4–17,5kVA

#### [ MS/COFR SERIES ]

- Double Converter
- Output pure sinewave
- Output voltage continuously adjustable 0-270V
- Output frequency switchable 50Hz or 60Hz
- External Contact for ON/OFF-switching
- 19" model
- Standard: Analog Interface
- Option: Output frequency 400Hz, Input frequency 115V/200V, Isolating transformer
- Especially for the supply of production and testing technology and the Avionic area



### AC/AC 400Hz Fixed Frequency Converter (CV) 1500–6000VA

#### [ AB/FTP/FTT SERIES ]

- Input 1- or 3-phases, Output 3-phases
- Output pure sinewave
- Output frequency adjustable 50Hz, 60Hz or 400 Hz
- Without displays
- Shut-down function
- Ambient air temperature  $0^{\circ}$  to  $+50^{\circ}\text{C}$
- Option: Temperature range  $-40^{\circ}\text{C}$  until  $+65^{\circ}\text{C}$ , Ruggedized, Tropical protection,
- Remote shut-down and Voltage adaptation
- Especially for the supply of areas, which need a save mains or frequency which is independent of the disruption of the mains



### AC/AC 400Hz Fixed Frequency Converter (CV) 250–3000VA

#### [ AB/FC SERIES ]

- In- and Output 1-phase 115VAC or 230VAC
- Output pure sine wave
- Without displays
- Ambient air temperature  $0^{\circ}$  to  $+50^{\circ}\text{C}$
- Option: temperature range  $-40^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ , Ruggedized, Tropical protection,
- Output frequency 50Hz or 60Hz
- Especially for the application area **Avionic**



### Electrical DC Load (CV/CC/CR/CP) 400–7200W

#### [ EK/EL SERIES ]

- Output DC Load Power up to 400 V and Currents up to 600 A
- A/B-Operation: Two different nominal values for all operation modes selectable and switchable
- Battery test mode
- Trigger output
- 1,6-time overload
- Standard: Analog, Option: RS232, USB, GPIB, APG, CAN
- Option: Interface (from 3 KW) for 2 Quadrant Operation / Change-over of the control speed and remote sense, **fluid cooling**
- Especially for nearly all requirements in the laboratory and industry.



### Electrical DC Load (CC/CR/CP) 2000W

#### [ EK/ELC SERIES ]

- **Feedback of the DC Power in the AC Mains (Energy Efficiency)**
- Efficiency DC-in/AC-out up to 84%
- DC Load Voltage 3-60V
- Parallel operation
- Extensive control function
- Redundant mains monitoring
- Standard: Analog, Option: GPIB
- Especially for Burn-in-test facilities, alternator test, battery capacity check



### Electrical DC Load (CV/CC/CR/CP) 250–500W

#### [ ZT/ELA SERIES ]

- Min. DC Load Power **Input 0,35V**
- A/B-Operation: Two different nominal values for all operation modes selectable and switchable
- Load ON/OFF function
- Load ON delay at Power up
- Parallel operation
- Standard: Analog (with +15VDC aux. Voltage for the supply of external components), Option: GPIB/RS232 or /USB with drivers, CAN
- Option: Front-End unit without control elements, Accuracy (highest resolution in the area of load current smaller than 10A)
- Especially for the load of solar cells, fuel cells, Power Supplies and precision applications



### Electrical AC/DC Load 5 – 500kW/kVA

#### [ GK/FW SERIES ]

- Output voltage up to 1000VAC
- 1,5-times Overload
- 3 operating methods
- Touchscreen-display
- Standard: RS232, Option: Analog, CAN, Ethernet
- Option:
  - **Feed-back unit** up to 100% (Energy Efficiency)
  - **Also as DC-Power Supply, DC/AC Inverter, Battery charger (-Test-system) and UPS available**
- Especially for Engine test stand, Feed-back from solar plants, regulated load resistance for battery test with feed-back



## Battery Charger 300–1500W



### [ EK/BC1800R SERIES ]

- **Programmable** by the user-friendly and interactive menu navigation on the front side
- Free selection of the battery-type
- Adjustment of the battery voltage and charging time
- Limitation of max. charging Current
- Charging profiles can be activated
- Charging Voltage can be controlled via a temperature probe for a optimal charging Voltage
- Input for a Voltage regulation (Remote Sense)
- Standard: Analog, Option: CAN Bus, USB und RS232
- Especially for industrial applications, schools and institutes

## DC/UPS Units 240–1200W



### [ EK/UPS SERIES ]

- Wide input range
- Efficiency >91%
- Overload with +50% until max. 8 seconds
- Battery low-voltage protection
- Signal outputs
- DIN-Rail mounting
- Standard: Analog Interface, Battery test
- Option: Back-up time extendable
- Especially for heavy-duty industrial applications

## Contact



[www.eps-germany.de](http://www.eps-germany.de)

## EPS on the Internet

You can visit us at any time on the internet. Our URL [www.eps-germany.de](http://www.eps-germany.de) does not only provide all the content of this catalogue; you will also find the detailed data-sheets of every item for self-printout.

## EPS at exhibitions

Of course you will find us at the important trade fairs like the Electronica Munich, Automotive Stuttgart, Aerospace Hamburg ...



# The EPS-programme

**Customized Applications**

**AC/DC**

**DC/DC**

**AC/AC**

**Electronical Load**

**Charger/UPS**

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