



# Forging

Compact Converter EVA/IGBT-Technology

[www.abpinduction.com](http://www.abpinduction.com)

**ABP** | PEOPLE.  
INDUCTION | TECHNOLOGY.  
SUCCESS.

# Compact Converter EVA

## Technical data

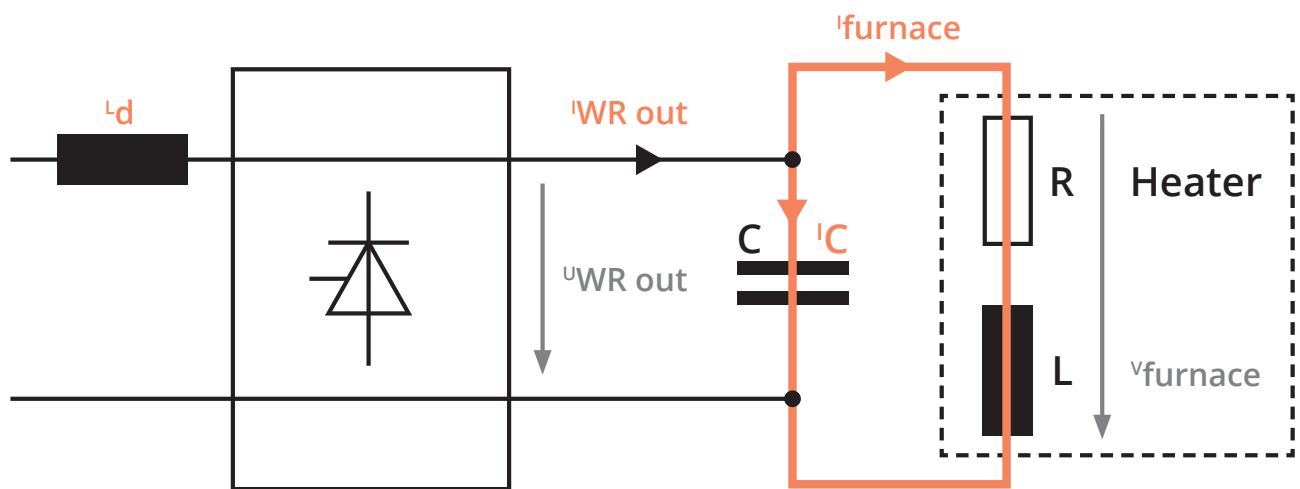
Power:	250 kW/module
Frequency:	1–6 kHz
Power factor:	> 0,95
Semiconductor:	IGBT



# ABP Converter Design

## Parallel Inverter

- High current only in the swing circuit
- Coupling choke smoothes peaks

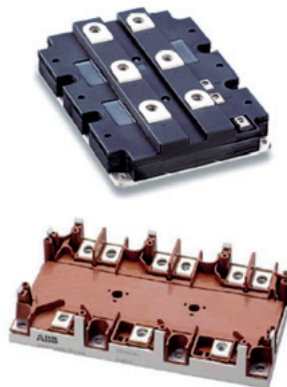


## Insulated Gate Bipolar Transistors

IGBTs = Bipolar Transistors with isolated Gate

### Advantages:

- High reliability
- Low complexity of circuits
- Flexible applications
- Low switching and conduction losses
- Low control power (FET-control principle)
- Isolated water-cooling



# MATDAT-FX

## System controller MATDAT-FX

### Target values

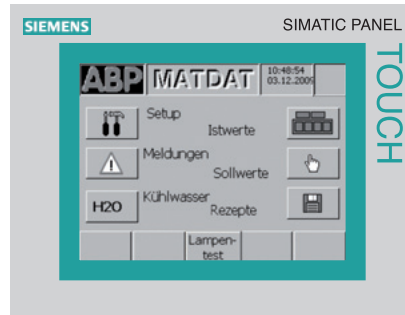
- Feeding rate, voltage and temperature limit
- Temperature, frequency and power are physically logical consequences of these parameters

### Recipes

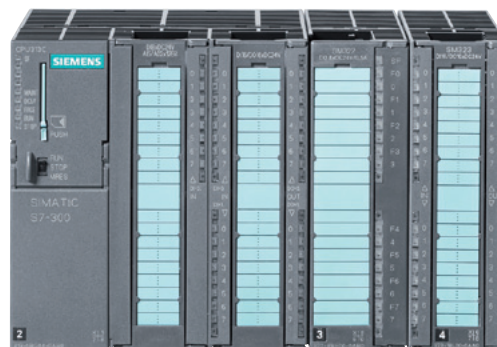
- Proven settings can be stored as recipes
- Storage of process data is possible via recipe management system
- Recipes can be named, for example production number
- Recipe management system is equipped from the factory with user management

## Visualization

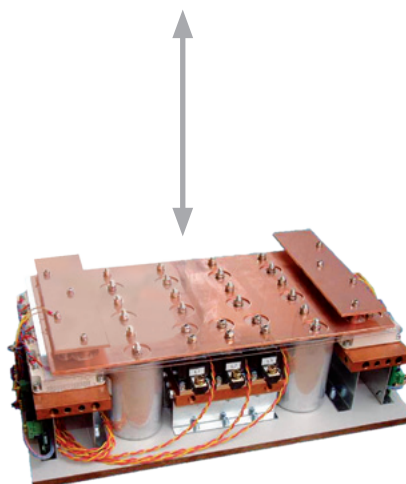
- Actual values
- Target values
- Recipes
- Error messages
- Cooling-water visualization (optional)



## PLC



## Converter





# IGBT-Technology

## Our experience

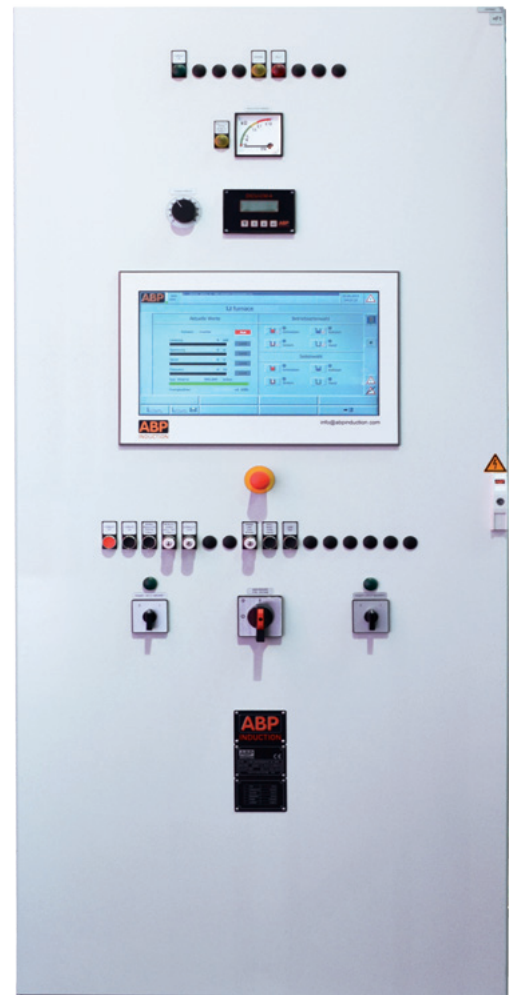
ABP can rely on many years of experience using IGBT technology (Insulated Gate Bipolar Transistor).

Reasons why IGBT technology is state of the art:

- The power factor (ratio of active and reactive power) is always greater than 0.95.
- Purified water is not necessary and avoids the need for expensive water treatment systems. The higher allowable cooling water temperature reduces the overall cooling water system costs.

## IGBT technology

- Expandable modular design
- No deionized water for the cooling circuit required.
- Improved availability through short service times during a breakdown
- Easy assembly and maintenance
- Increased energy efficiency
- Performance factor of  $\cos-\varphi > 0,95$



# Your Contacts

## GERMANY

ABP Induction Systems GmbH  
Kanalstrasse 25  
44147 Dortmund  
Phone: +49 (0) 231 - 997 - 0  
Fax: +49 (0) 231 - 997 - 2293

## RUSSIA

ABP Induction Systems GmbH  
Branch Office  
Ryazanski prospect, 75/4  
109456 Moscow  
Phone: +7 (495) 620 57 26  
Fax: +7 (495) 620 57 26

## INDIA

ABP Induction Systems Pvt. Ltd.  
E-120/Unit-2, Manjusar GIDC Industrial Area  
Opp. Du Pont factory.  
Savli - 391775, Vadodara  
Phone: +91 2667 264808/809  
Fax: +91 2667 264808/810

## CHINA

ABP Induction Systems (Shanghai) Co. Ltd.  
No.118, Lane 289 Fulian II Rd.  
Baoshan District,  
Shanghai 201906  
Phone: +86 (0) 21 - 5639 1278  
Fax: +86 (0) 21 - 5639 0822

## USA

ABP Induction LLC  
1460 Livingston Ave.  
North Brunswick, NJ 08902  
Phone: +1 732 - 932 - 6400  
Fax: +1 732 - 828 - 7274

## MEXICO

ABP Induction Systems SRL de CV  
Priv. La Puerta 2882-4  
Parque Ind. La Puerta  
Santa Catarina, N.L. 66350  
Phone: +52 81 8390 - 2775  
Fax: +52 81 8390 - 2774

## SOUTH AFRICA

ABP Induction Furnaces (PTY) Ltd.  
77 Heidelberg Rd.  
City Deep/Johannesburg  
Phone: +27 (0) 11 623 1814/17  
Fax: +27 (0) 11 623 1809

## SWEDEN

ABP Induction AB  
Spännarhyttans Ind. område  
738 92 Norberg  
Phone: +46 223 23135  
Fax: +46 223 21429

## THAILAND

ABP Induction Ltd.  
80/1 Moo 11, Phaholyotin Road  
Tambol Klong Nueng  
Amphur Klong Luang  
Pathumthanee 12120  
Phone: +66 25 29 34 57  
Fax: +66 25 29 34 84