



## Group overview







Steffen Thierfelder

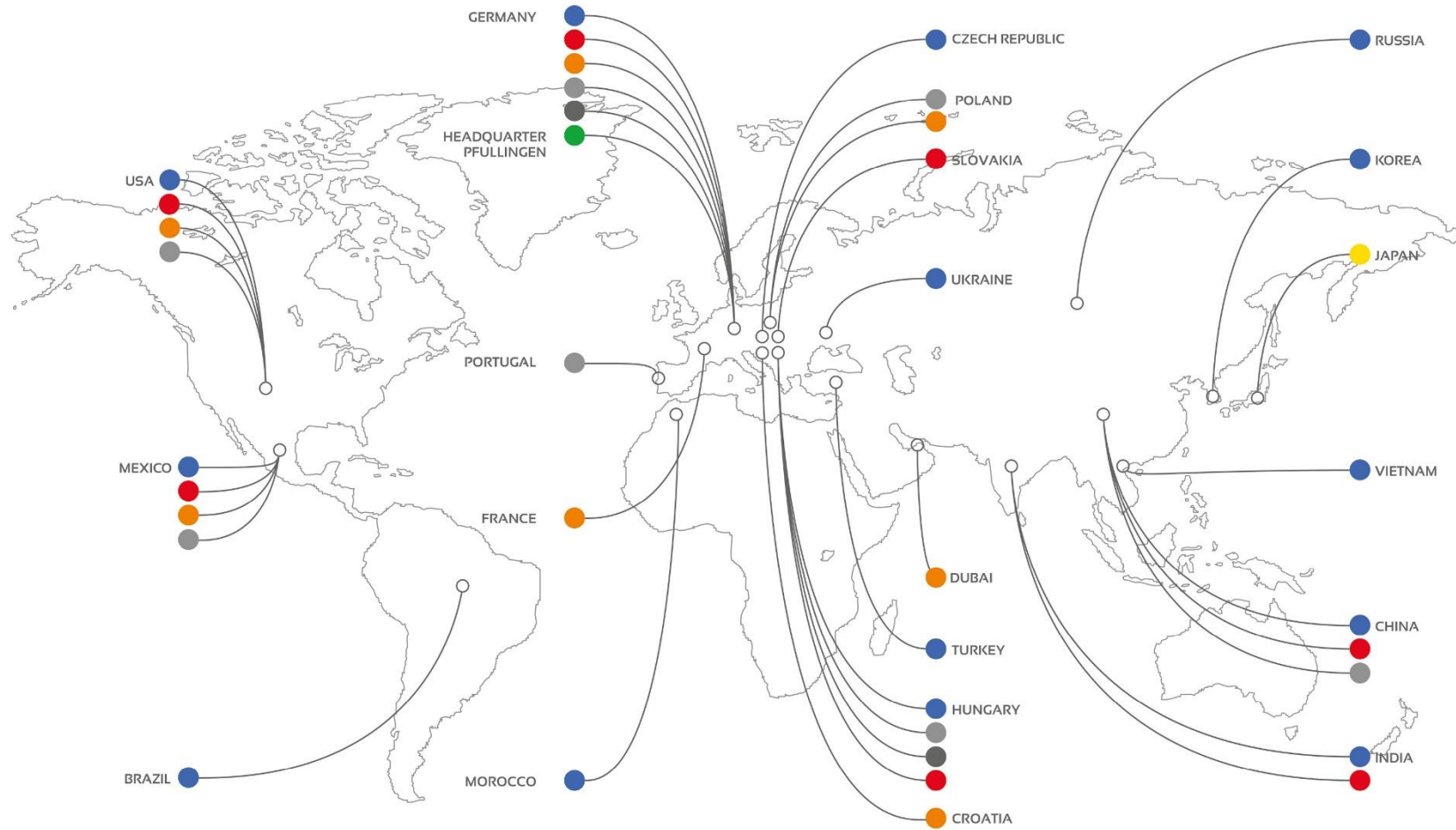
Chief Executive Officer

## Prettl at a glance



## Business Divisions - Our Service Spectrum.

Automotive	Appliance solutions	Energy	Electronics	ProSys	PRO
					
Coils, magnetic actuators and valves	Lighting modules	Power generators and emergency power units	Electronic components for control and radio systems	<b>Emission Systems</b>	Power generators and emergency power units
Sensor cables and cable assemblies	Operating modules	On- and off-grid systems and battery systems	Wireless communication modules	Catalyzers	Solar Inverters
Metal technology and seat structures	Control panels for the white goods sector	Solar Inverters	One of the leading system suppliers for EMS	<b>Prosumer</b>	PV-appliances
		Electrical drive systems and auxiliary main power units		High-quality kitchen appliances	High-quality kitchen appliances
				Drive systems for garage doors and gates	



- Division **Electronics**
- Division **Energy**
- Division **Appliance Solutions**
- Division **ProSys**
- Division **Automotive**

# The company at a glance

ENDRESS develops, manufactures and distributes power generators for the global market.

Headquarter: Bempflingen, Germany

Important events in the company history:



1914

1975

1987

2011

2013

2016

<p><b>Founding of the company.</b> The first products were high quality welding equipment</p>	<p><b>Takeover by the PRETTL Group</b></p>	<p><b>Start of power generator mass production for the DIY segment</b></p>	<p><b>Received Baden-Württemberg's Environmental Technology Award for the eco-friendly DUPLEX<sup>plus</sup> technology</b></p>	<p><b>Introduction of the ENDRESS Remote Monitoring Application E-RMA</b></p>	<p><b>Development of Dual Speed, the new Rental Line and the Hybrid System</b></p>
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# ENDRESS Production



Made in Germany since 1914



# Our Mission for Today !

We are looking for YOU !

Be our strong PARTNER, you will find yourself in good company.



# Product range

**Mobile power generators**  
1.0 –15 kVA  
Petrol / diesel



**Rental Line**  
20.0 – 225 kVA



**Power supply units**  
10 - 730 kVA



**Lighting systems**  
mobile



**Lighting systems**  
stationary



**Power take-off**  
alternators  
25-100 kVA



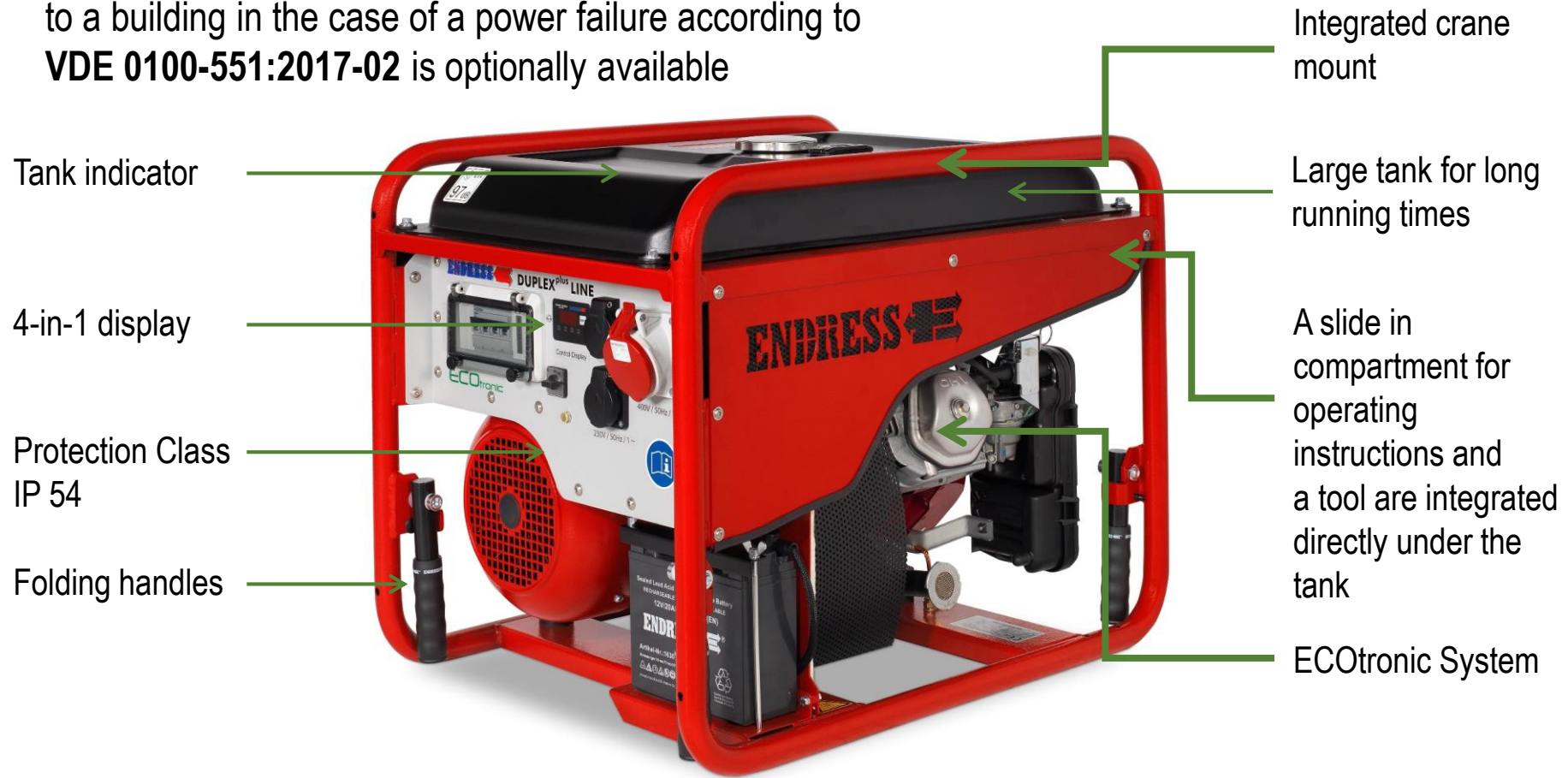
**Power generators in accordance with**  
DIN 14685-1 / 2,  
light mast plant





## The new DUPLEX Line 4.0 – 15.0 kVA

A mains supply socket with transfer switching equipment for supplying power to a building in the case of a power failure according to **VDE 0100-551:2017-02** is optionally available



Tank indicator

4-in-1 display

Protection Class  
IP 54

Folding handles

Integrated crane  
mount

Large tank for long  
running times

A slide in  
compartment for  
operating  
instructions and  
a tool are integrated  
directly under the  
tank

ECOtronic System



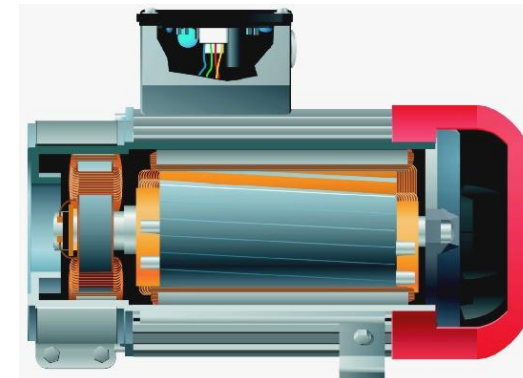
# DUPLEX technology



## DUPLEX technology

### The advantages to you:

- Combines and strengthens the advantages of asynchronous and synchronous generators
- Simultaneous use by electronic and inductive appliances
- IP54 protection class and therefore protected from dust and splashing water
- Brushless, electronically controlled generator
- Voltage stability +/- 1%
- 100% short-circuit proof
- Up to 4 times the starting current
- Brushless technology provides 20,000 operating hours
- Full power take-off in the three-phase and alternating current range for various consumers



# Power Line

Compact design with integrated plastic fuel tank

Able to serve the most demanding customer needs

Exhaust silencer with rain flap

Coolant refilling facility

For residential or industrial areas

Compliant with noise and safety regulations



# The New Cummins Line

Problem-free use, also in winter through use of a standard engine and coolant prewarming

Manual / Automatic instrument panel

Individually fused sockets

Base frame with continuous fork-lift plates



Large steel tank

## CUMMINS FEATURES

The main battery switch



Second tank indicator on the fitting



Touch protection for rotating parts



Large maintenance doors



# The new RENTAL LINE 20 – 225 kVA

Central crane loading

IP 54 manual/automatic instrument panel

Individually fused sockets

Basic framework devised for the rental business



Galvanised hood for increased corrosion protection

Large steel tank for running times of 24 - 50 hours (dependent on the model)

Outlet for external refuelling

Liquid collecting tray to protect the environment

The solution – the combination of a conventional Generator with a Battery storage

The lowest-emission power generator is the one that is not running



The solution— External Energy Storage





## The solution— External Energy Storage

ENDRESS has developed an external module for three-phase applications and higher power requirements, which can either be used completely autonomously without a diesel unit or in a network.

This external energy storage unit is available in the performance class from 12 to 24 KVA and with a battery capacity from 12 to 24 kW / h.

It is possible to connect several energy storage with a simple synchronization cable that can extend the power and battery capacity as required.

The ENDRESS energy storage has a practical euro pallet dimension for easy transport.



Example of use 2:

Generator + Energy Storage + Energy Tank



The generator act like a range extender

The energy tank act like a range extender



## The ENDRESS battery storage:

Possible applications:

Construction sites



### Advantages for construction companies

Application in urban areas with high requirements such as Paris city center and other cities in France. We will be faced with more regulations of emissions, means construction companies will be faced with more requirements to their construction machines and tools. Highest standards are in UK, Germany, Switzerland and France.

## The ENDRESS battery storage:

Possible applications:

Construction site at night



## The ENDRESS battery storage:

Possible applications:

tunneling



## The ENDRESS battery storage:



**Ideal for:** construction sites, events, tools und electrical machines



**enviromental:** no emission, reduction of noise emission



**economical:** less operating time of the genset, less fuel consumption, optimized utulisation of genset, less attrition



**safe:** overload-, overheat cut off, short circuit protection, deep discharge protection, executed according to DGUV 203-032



## Service and Maintenance

Access to the aggregate via smartphone, PC & tablet

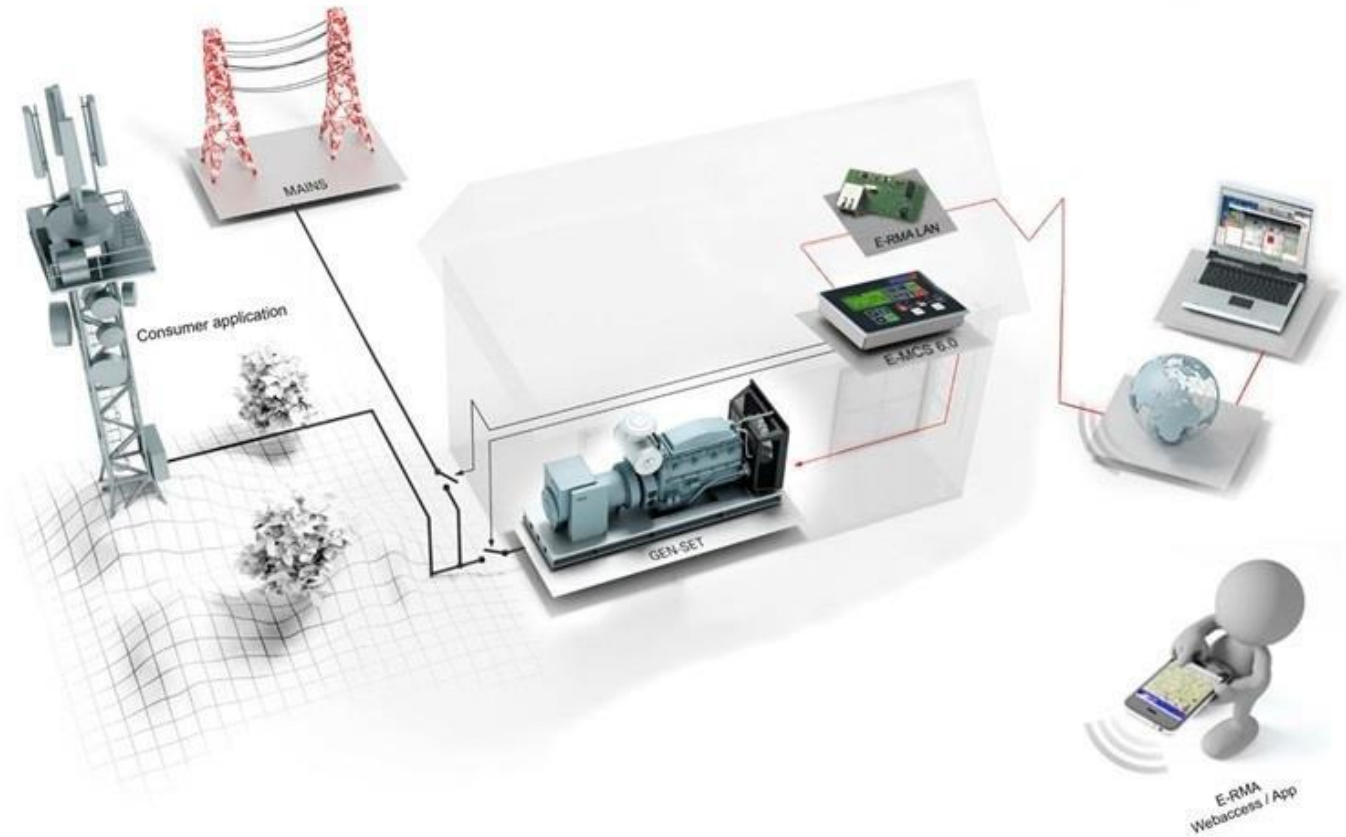


Developed for the monitoring of your rental equipment also over large distances. It does not matter where you are in the world, with the E-RMA system from ENDRESS you always have an overview of the most important data.

Advantage for the Renter:  
Remote control



Service and Maintenance  
Technology E-RMA connected power



**E-RMA LAN**  
ENDRESS Remote Monitoring Application with LAN connection

