



Andreas Brandt, September 24-26, 2014 – Dalmine, Italy

ABB OEM Days 2014

Getting ready for a smarter power network

Getting ready for a smarter power network

Why it matters



- Central importance of the environmental impact, the reliability and continuity of the services
- Customers behavior and role changed, changing the rules of the game in the marketplace
- Increasing need and application of intelligent devices to efficiently manage the network.

Getting ready for a smarter power network

The pillars to base the right solution on

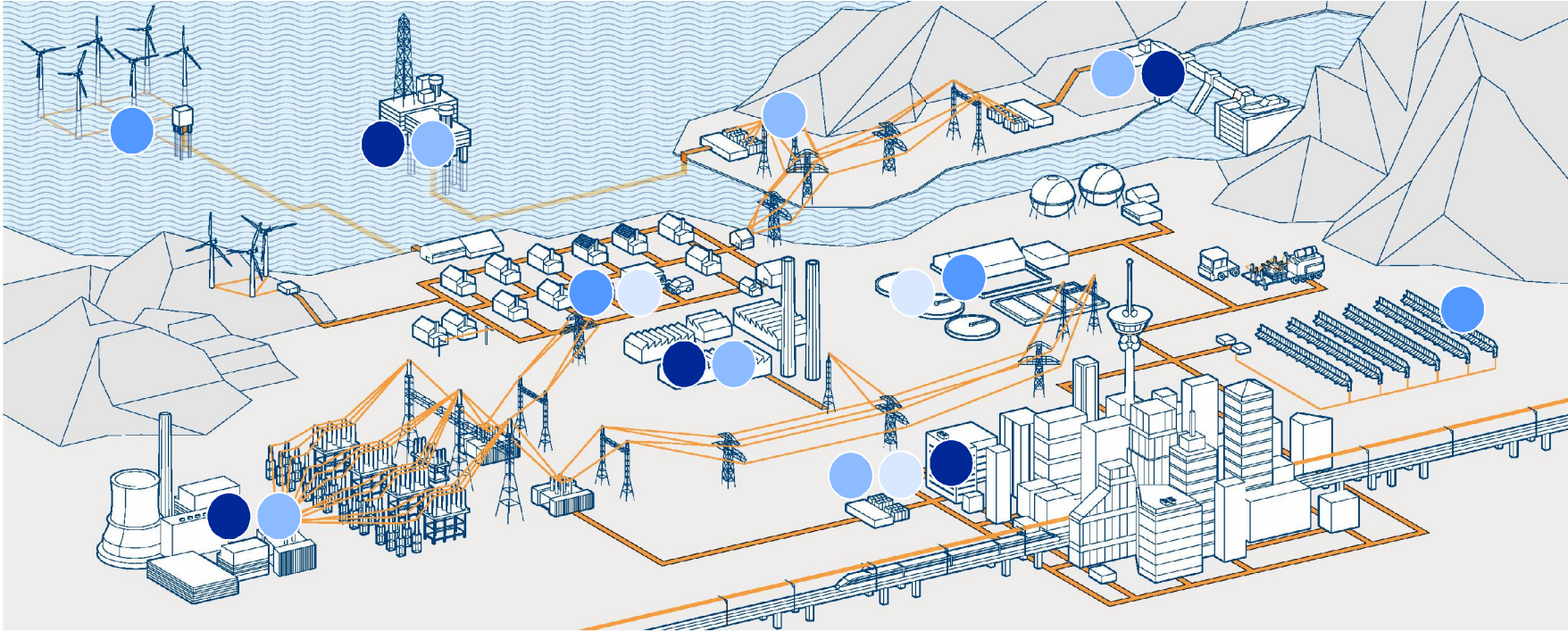


Why ABB?

- Cover the whole MV market requirements in terms of segments, international standard and application complexity
- Worldwide presence and global experience
- Willing to share innovation and know-how with our partners through dedicated programs
- Exhaustive offering portfolio from components to complete solutions

Getting ready for a smarter power network

The pillars to base the right solution on



● Secondary Distribution



● Primary Distribution



● Smart Secondary Distribution

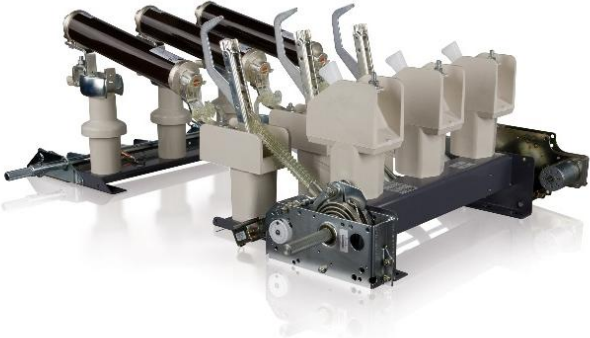
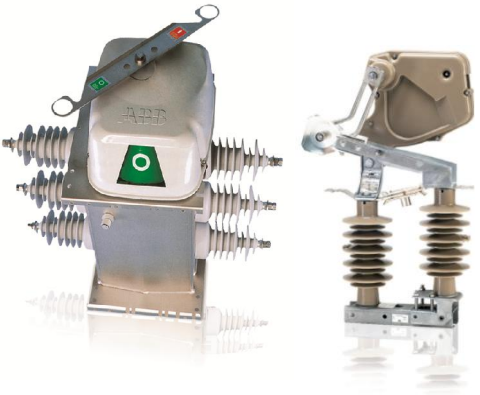
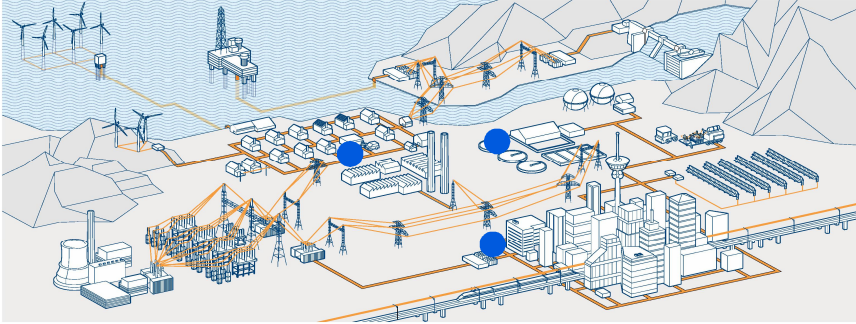


● Special Applications



Secondary Distribution

Fast, easy and effective



Secondary Distribution

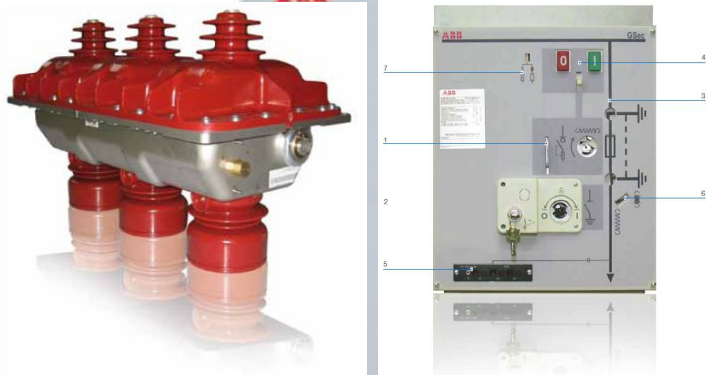
Fast, easy and effective

GSec

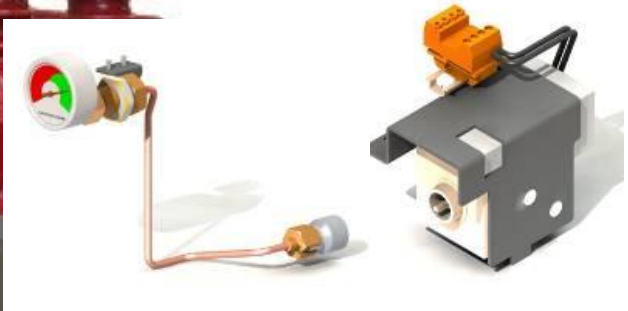
Three-position switch
disconnecter

- Secondary distribution network
- Building and construction and small industry
- Enables remote control

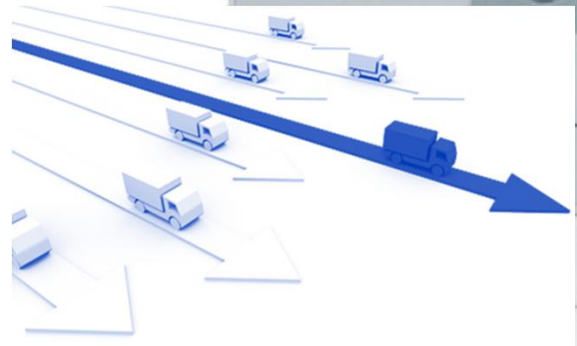
Modular switch



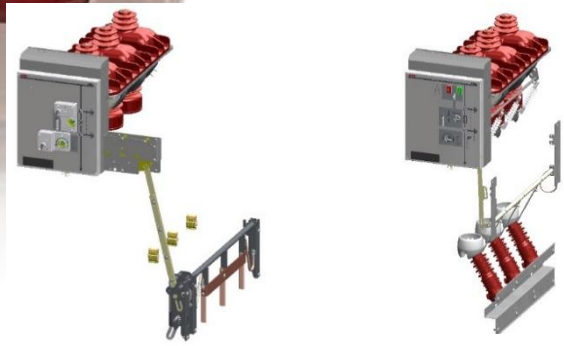
Easy customization



Short delivery



All typical units



Secondary Distribution

Fast, easy and effective

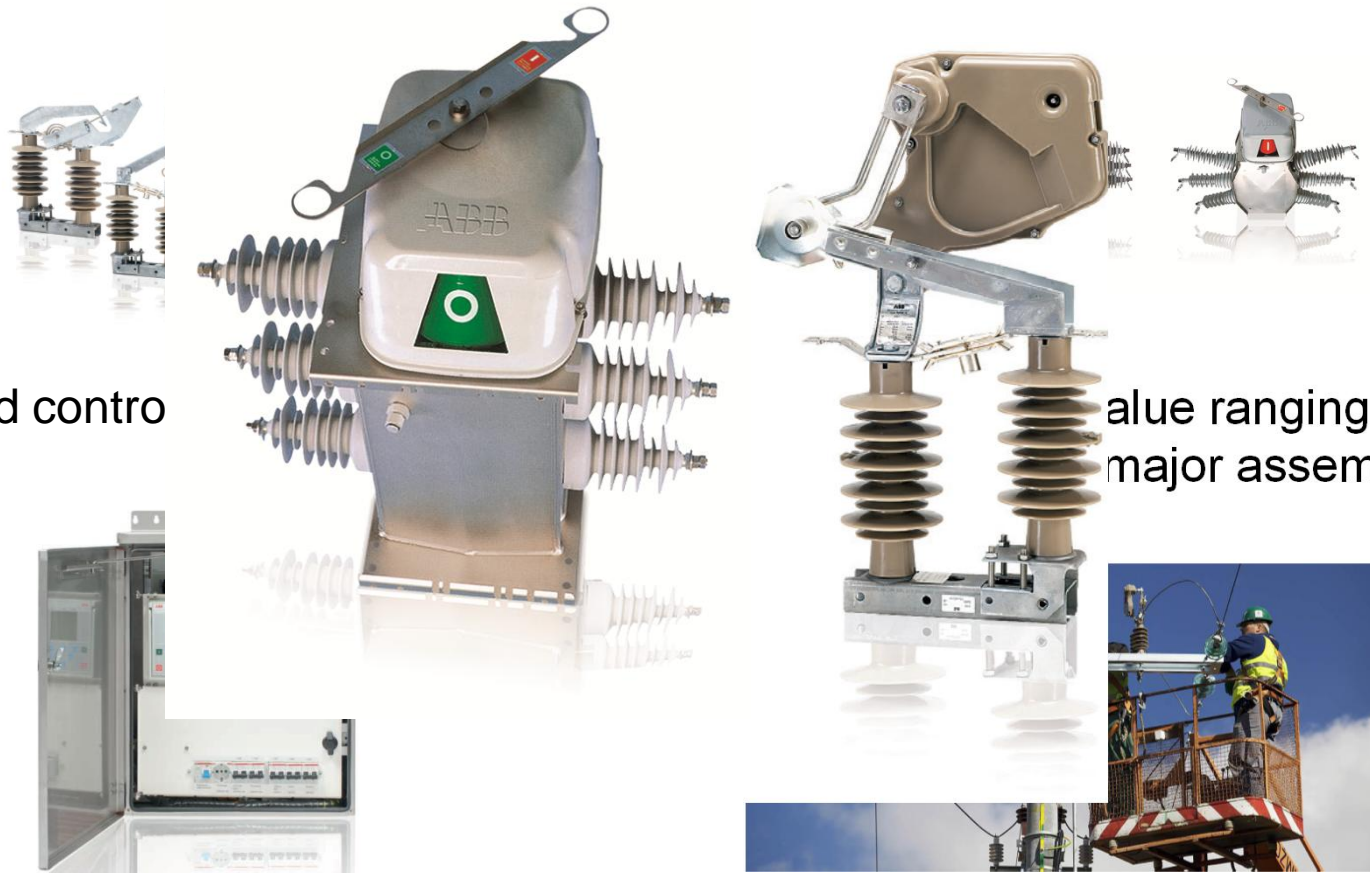
Switching Point

Air or SF6 Insulated Load Break Switches for outdoor applications

- Smart distribution network
- Enables fault Isolation

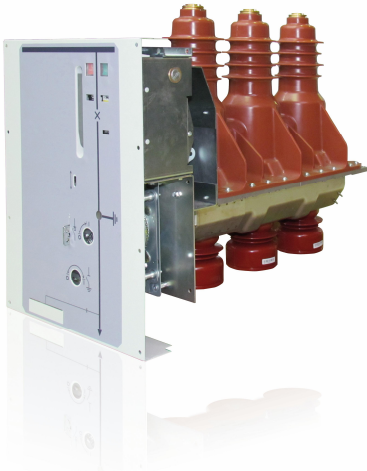
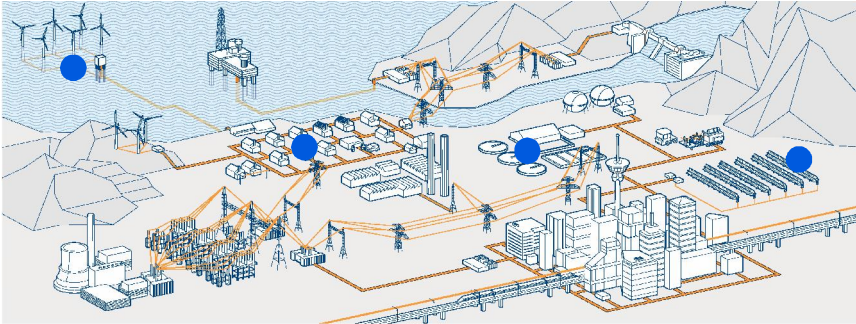
- Modular design of NPS LBS fits many requirements and allow future upgrades
- Field-proven solution resilience to harsh environments

- Advanced contro



Value ranging from major assembly

Smart Secondary Distribution Evolving to integration



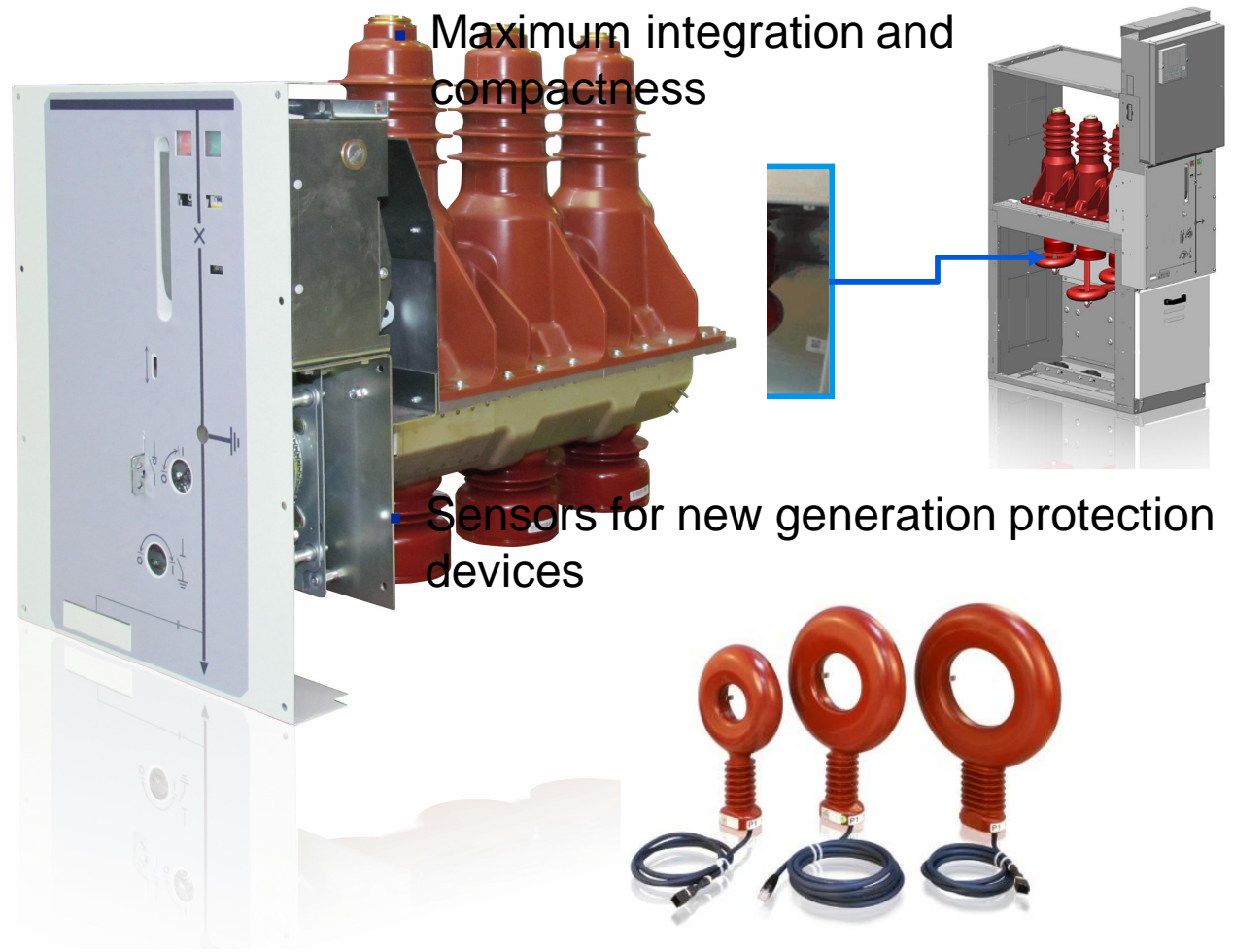
Smart Secondary Distribution Evolving to integration

HySec

Integrated Circuit
Breaker and Switch
Disconnecter

- Smart distribution network
- Minimized footprint for CSS application
- Enables fault isolation and measurement

- Proven solution for a assembly process



Maximum integration and compactness

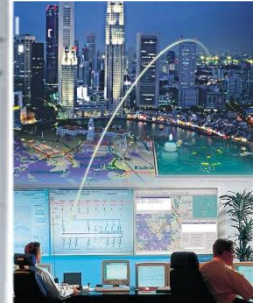
Sensors for new generation protection devices

Smart Secondary Distribution Evolving to integration

SafeRing SafePlus Family

- SF6 RMUs
- Compact secondary substations
 - Wind power plants
 - Infrastructure
 - Light industries
 - Buildings, hotels, shopping centers
 - Mining applications

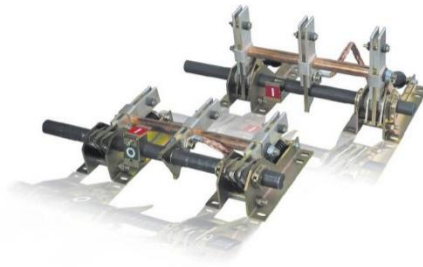
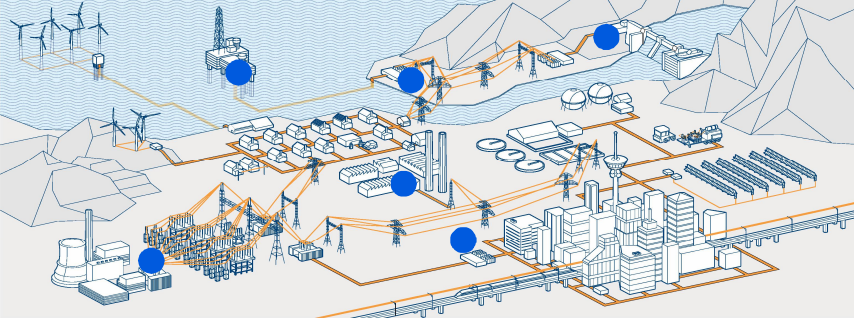
- Perfectly meeting requirements of CSS manufacturers and utilities
- Flexible answer to smart grid requirements



...ent solution and easy to
...nd applications



Primary Distribution



Primary Distribution

The bestseller

MV CBs

Primary Distribution
Circuit Breakers

- Primary distribution network
- All Industrial and process applications

- The most sold Circuit Breakers in the world
- Fulfilling global needs

- Based on embedded poles: compact, robust and easy to integrate
- Suitable to all ABB panels and enclosure solutions



Primary Distribution Sensing to the future

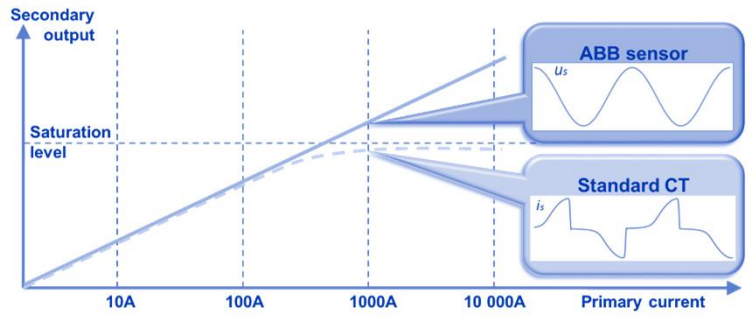
Sensors

- Flexibility of solution

- Post insulator voltage sensor
- KEVCD KEVA family
- VT – DIN type
- Ring Core CT Family



- Linearity: engineering reduction, fast and easy selection



- No custom configuration needed securing a shorter delivery time



Primary Distribution

Proactive safety

UFES

Ultra-Fast Active

Internal Arc Protection

- All industrial process applications
- Power plants
- Areas with public access
- Marine applications

▪ Compact & Easy to integrate

▪ Minimization of the pressure rise and gas exhaust

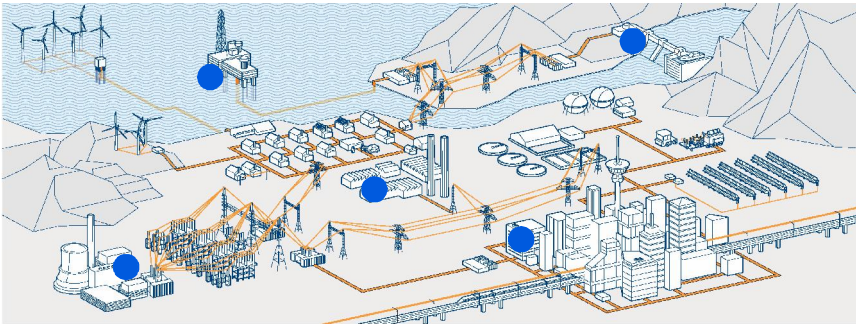
▪ Personnel safety under maintenance conditions

▪ Increased process and system availability



Special Applications

The key to access new markets



Special Applications

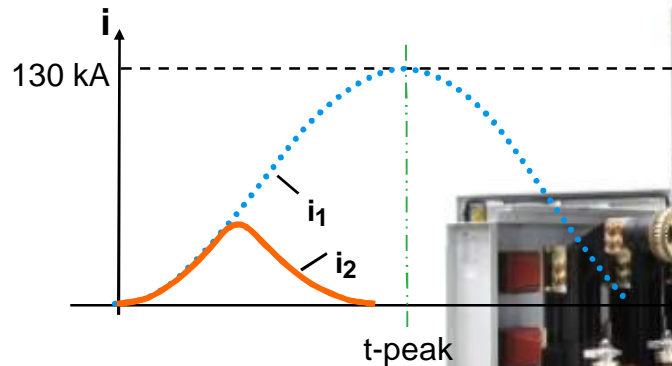
The key to access new markets

I_s-Limiter

The world's fastest limiting & switching device

- Heavy industries
- Power plants
- Utilities with IPP connection
- Marine applications
- Datacenters

- The short-circuit current is limited at the first current rise

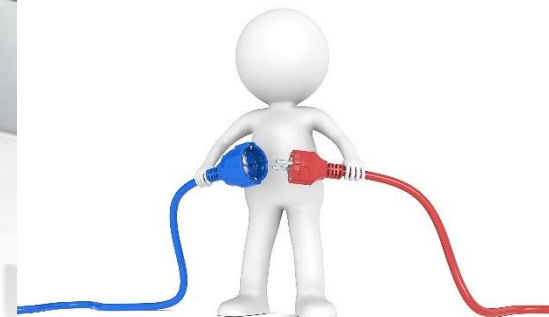


- compact high power generation in marine applications



- Cost reductions of switchgear installations

- Flexible connection of new power generation to utility network



Special Applications

The key to access new markets

VD4G-50

Generator Circuit Breaker

- Small power plants
- Networks with emergency power generator
- Process industry with own power generation

- Type tested to the newest standard IEC/IEEE 62271-37-13



IEC/TC or SC: SC 17A		Project number IEC/IEEE 62271-37-013	
Title of TC/SC: High-voltage switchgear and controlgear		Date of circulation 2012-11-30	Closing date for comments 2013-03-01
Also of interest to the following committees		Supersedes document: 17A/993/CD and 17A/1007/CC	
Proposed horizontal standard <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CD to the TC/SC secretary			

17A/1031/CD
COMMITTEE DRAFT (CD)

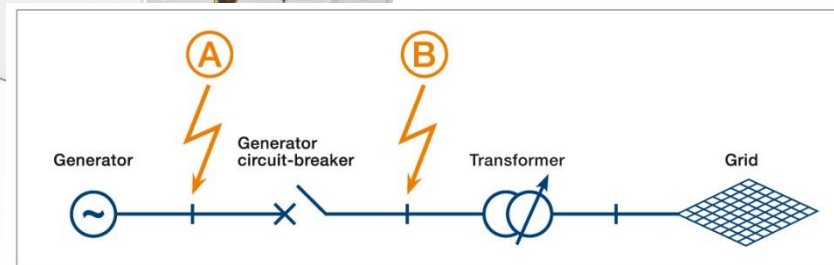
- Enables compact connection of small power generators



- Best footprint for Generator applications



- Tested for out of phase switching



Special Applications

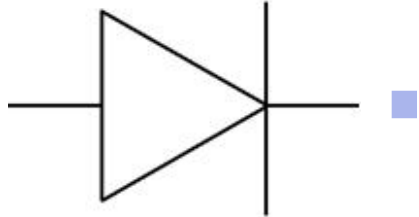
The key to access new markets

DS1

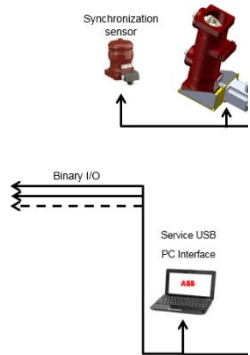
Diode capacitor switch

- Compensation of reactive power

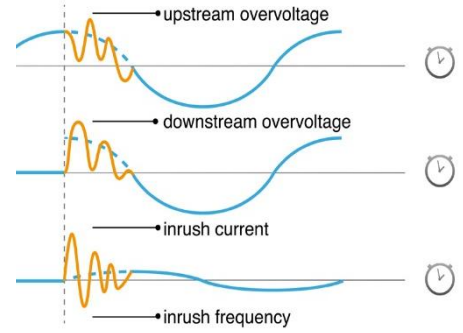
- Top level innovation



- Integrated diagnosis



Switching



Getting ready for a smarter power network

Why it matters



ABB is the right choice to get support with various products, solutions and related know-how to fulfill the needs of the new smart grid challenges of your customers.

Power and productivity
for a better world™

