ABB Ability™ Electrical Distribution Control System

Understanding Power
Responding to a changing world

- Electricity demand growing by 60% by 2040
- 30 billion connected devices by 2020
- 500,000 PV panels commissioned each day in 2017 - x3 by 2020
- 35% of new cars electric by 2020
- Connected living market >$730 billion in 2020
A digital transformation
Expanding horizons
How ABB Ability™ solutions deliver value

Digitally connected products and services providing expertise

Together
Do better
Do more
Know more

Collaborate
Optimize
Automate
Assess

Together

Do more

Know more

Collaborate

Optimize

Automate

Assess

Analyze

Sense

Act
ABB in Digital

Uniquely qualified

Information
$400 bn installed base
125 year history
Context

Technology
Electrical
Material
Mechanical
Digital

ABB
EXPERTISE

Know-how
Industry
Geography
Automation
Process
Data & Connectivity

ABB Ability™ Electrical Distribution Control System

Why?
Customers want to increase awareness on owned resources, improve performance and optimize their assets **to reduce total operating costs**

What?
ABB Ability™ Electrical Distribution Control System is a **cloud-based energy management and asset supervision solution** for buildings and industrial sites.

How?
It helps simplify facilities management, and **reduce energy and maintenance bills**, enabling a **30% reduction on operating costs**

The power of understanding at your fingertips
ABB Ability™ Electrical Distribution Control System

Features and Benefits

Cloud-based Energy and Asset Management

Monitor
Discover plant performance, supervise the electrical system and allocate costs

Optimize
Analyze the relevant information, improve the use of your assets and take the right business decision

Control
Remotely implement an effective power management strategy to simply achieve energy savings
Leveraging the connectivity and sensing of ABB devices, we can model new outlines for innovation in the \textit{low-voltage power distribution} business.

Emax 2 air circuit breaker, now becomes the smart hub by managing both \textit{power and data flows}.

A \textit{simple} and \textit{integrated architecture} enabling truly plug & play approach.
ABB Ability™ Electrical Distribution Control System

Case study

Italian water utility

ABB Ability™ Electrical Distribution Control System helps the Consorzio di Bonifica Veronese to remotely monitor and optimize two pumping stations and a hydroelectric power plant.

– 24’000 € grants (Energy Efficiency Certificates)
– 30% savings on operating costs
  • Optimization of personnel’s tasks and costs
  • Downtime prevention
  • Removal of power quality penalties

Read the press release
Watch the video
ABB Ability™ Electrical Distribution Control System

The journey has just started

- **Broaden** the application range and features

- Expanding our capabilities around **advanced analytics** and simulation

- Lead operational efficiency to **reduce footprint and costs**

- Achieving risk-based **predictive maintenance** maturity to drive better resource optimization, reliability, safety and compliance

- **Big data** leading to better products
ABB Ability™ Electrical Distribution Control System

Manage complexity
Plug-in the Ekip Com Hub module on Emax 2 or Ekip UP and start Ekip Connect wizard.

In **less than 10 minutes** the panel is connected to the cloud.

**Plug & play:**
- ACBs
- MCCBs
- MCBs
- Energy and Power meters

**Embedded solution**
**ABB Ability™ Electrical Distribution Control System**

**How it works**

**External solution**

Connect devices to **Ekip E-Hub** DIN rail module.

**High flexibility** and **extended retrofitting**.

Easy and fast configuration via Ekip Connect wizard.

**Plug & play:**

- ACBs
- MCCBs
- MCBs
- Energy and Power meters
- Analog and Digital meters
ABB Ability™ Electrical Distribution Control System

How it works

Cloud & Cybersecurity

Why cloud-computing

- **Innovation** and **security** as a standard
- **Scalability** as a drive for business advantage

Cybersecurity

- **Design and development:**
  collaboration between ABB and Microsoft
- **Test, assessment and validation:**
  ABB corporate research center and global IS, and specialized partner on IT security
Typical market

**Building**
Commercial Building, e.g. hotels, shopping malls, retailers and chain stores

**Public facility**
Public or institutional buildings related to the tertiary section, e.g. medical facility, sport and convention center, school

**Industrial**
Small-Mid size Industrial plant and Infrastructure
**ABB Ability™ Electrical Distribution Control System**

A simple shopping list

**Hardware**

- Ekip Com Hub
  - Emax 2 or Ekip UP embedded communication module for cloud-connectivity
- Ekip E-Hub
  - DIN-rail mounted communication module for cloud-connectivity

**Commissioning tool**

- Ekip Connect 3 Software available via free download

**Services**

- ABB Ability™ EDCS
  - subscription to monitor, optimize and control your systems
  - Each subscription is valid for one site, up to 15 users’ access