

# Hospitals and health facilities

Combining reliability, efficiency and safety



ABB provides solutions (products, systems, services) for a reliable power supply, sustainability of the facility and comfort and safety of patients and occupants. Connected digital solutions and advanced technologies provide hospitals with new insights and possibilities to reduce CO<sub>2</sub> footprint and ensure efficient operation.

Carcassonne Hospital Centre, which is pursuing a sustainable development strategy, uses ABB's products.



## Reliability

Hospital is a critical power application and continuity of service is a must. Power outages are not only a nuisance, they can also be life-threatening. This is why, for many years already, ABB brings reliable electrical power supply.



## Energy efficiency

Tight budgets and sustainability are top concerns. ABB brings smart solutions to save energy through connected, digital technologies.

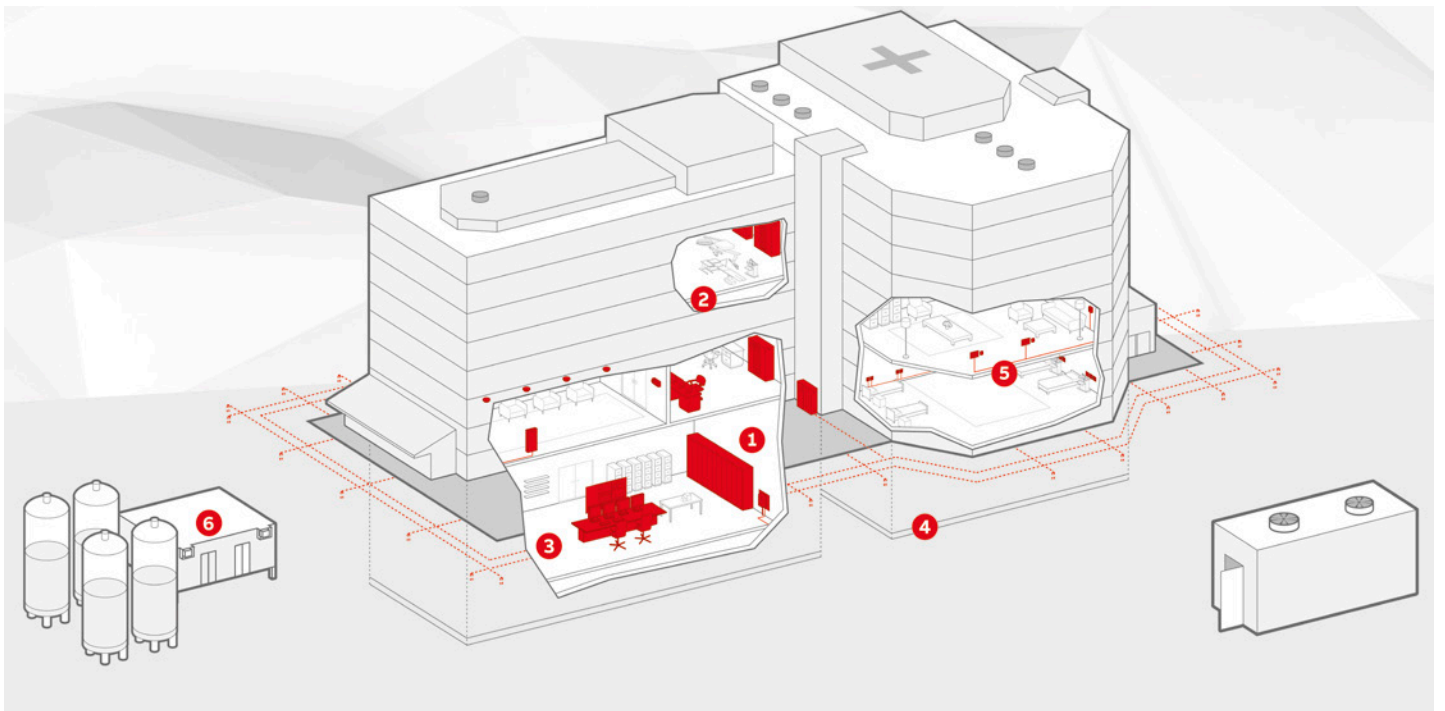


## Safety and security

Care towards these two pillars must be guaranteed in every environment inside the facility, as well as for patients and occupants. ABB brings solutions to ensure protection against many risky events.

## World-wide projects

- Nouvel Hôpital d'Épinal (FR)
- Hospices Civils de Lyon (FR)
- Centre Hospitalier de Carcassonne (FR)
- Centre Hospitalier de Bastia (FR)
- Nouvel Hôpital d'Orléans (FR)
- University Hospital Basel (CH)
- Triemli Spital, Zurich (CH)
- KK Women's and Children's Hospital (KKH) (SG)
- Hvidovre Hospital (DK)
- Hospital Nova (FI)
- Dumfries and Galloway Hospital, UK
- Children's Hospital in Perth, (AU)
- The Niguarda Ca'Granda hospitals of Milan (IT)
- The Humanitas Clinic in Rozzano (IT)



### 1 Main distribution

- Medium and low-voltage switchgear
- Protection relays and control devices
- Automatic transfer switches
- Circuit breakers (ACB, MCCB)
- Electrical arc and surge protection
- Uninterruptable power supply (UPS)
- Cabinets, enclosures

### 2 Sub-distribution

- Switchboards and components for medical locations (group 2, IEC60364-7-710)
- Distribution busbar system (Smissline TP)
- Energy and power monitoring and measuring devices
- Enclosures and DIN-rail components
- Surge protection devices
- Wire and cable management, connection and protection
- Cable protections systems

### 3 Energy management and building automation

- ABB Ability™ solutions for energy and asset management
- Building automation (open source ABB i-bus KNX) to control lighting, temperature, blind-shading
- Digital upgrade of existing breakers
- Load shedding and power control
- Self-healing network application

### 4 Zero-emission technologies

- Battery storage
- Electric vehicle charging infrastructure
- Renewable energy integration

### 5 Safety and security

- Cable protection and management
- Emergency lighting luminaires and systems
- Presence and smoke detectors
- Video surveillance and access control (IP-based)
- Lightning protection (structure, grounding, electrical)
- Cyber-security (ABB Ability™)
- Complete protection of electrical system (integrated MV/LV enabled by IEC61850 communication)

### 6 External laboratories and industrial support functions (sterilization, pharmaceutical, cooking, laundry processes)

- Controllers (plant control, logic controllers/PLC)
- Machine safety solutions
- Process robotics
- Collaborative medical laboratory robots