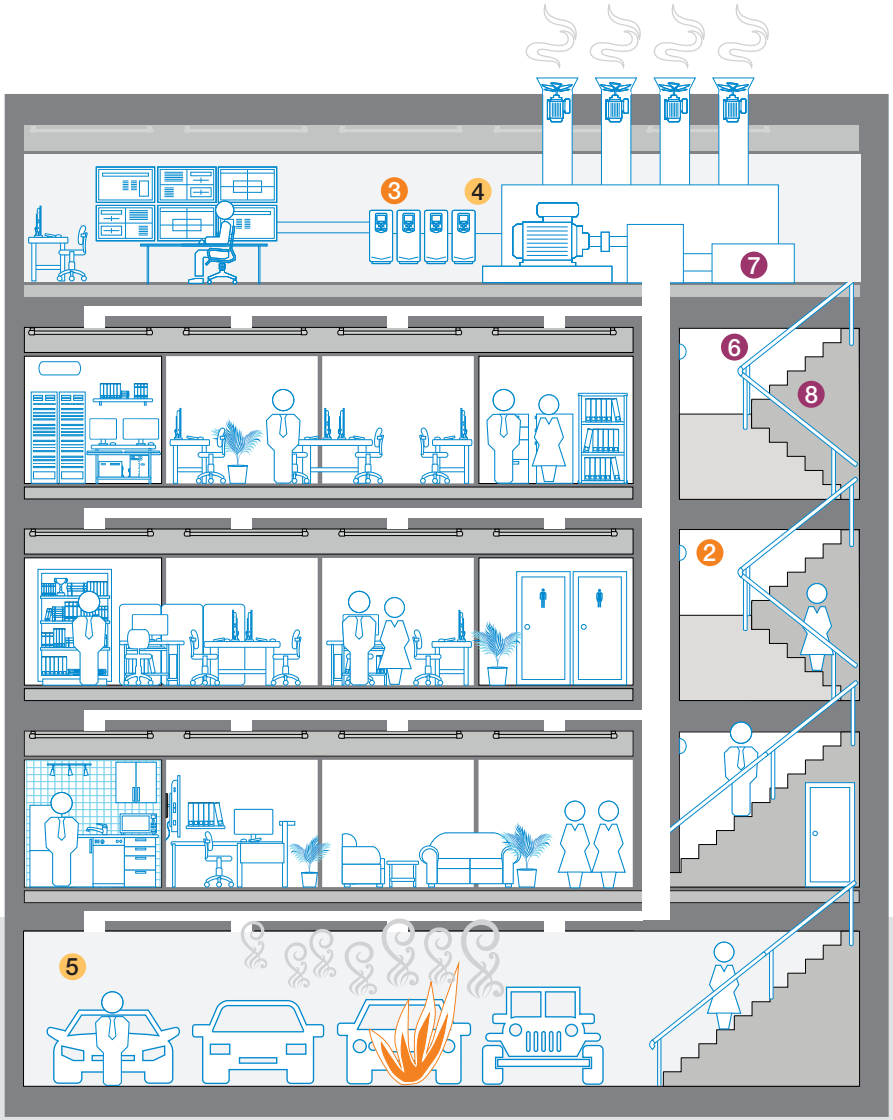
Fireman’s override variable-speed drive

Fire mode

1. In the event of a fire, the mode is triggered with a special key at the firemans control station.
2. A signal from the building’s fire alarm system forces the VSD to enter fire mode and overrides all other inputs.
3. The VSD ignores reset faults and warnings to ensure a “run at all costs” operation and forces the motor to run at the adjustable, pre-set speed or PID controlled speed.

Fume extraction

4. VSDs operate the HVAC motors in reverse to remove smoke from the building, assisting with visibility and safety during firefighting.
5. For applications such as underground car parks, the fans providing the fresh air intake are often reversed in the event of a fire to provide smoke extraction.



Stairwell pressurisation

6. Stairwell pressurisation ensures escape routes are accessible by using VSDs for positive pressure control.
7. The VSD’s PID control maintains the pressure in a stairwell at constant value, thereby keeping the stairwell possitively pressurised to keep smoke and fire out.
8. If there is a sudden presssure change caused by doors opening or windows blowing out, the PID controller detects such changes and alters the motors speed to keep the correct pressure.