



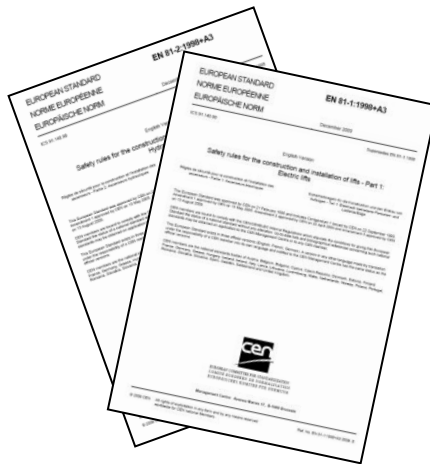
Wittur experience in the installation of UCM solutions on the German market

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Why (EN 81-1/2) + A3 – UCM?



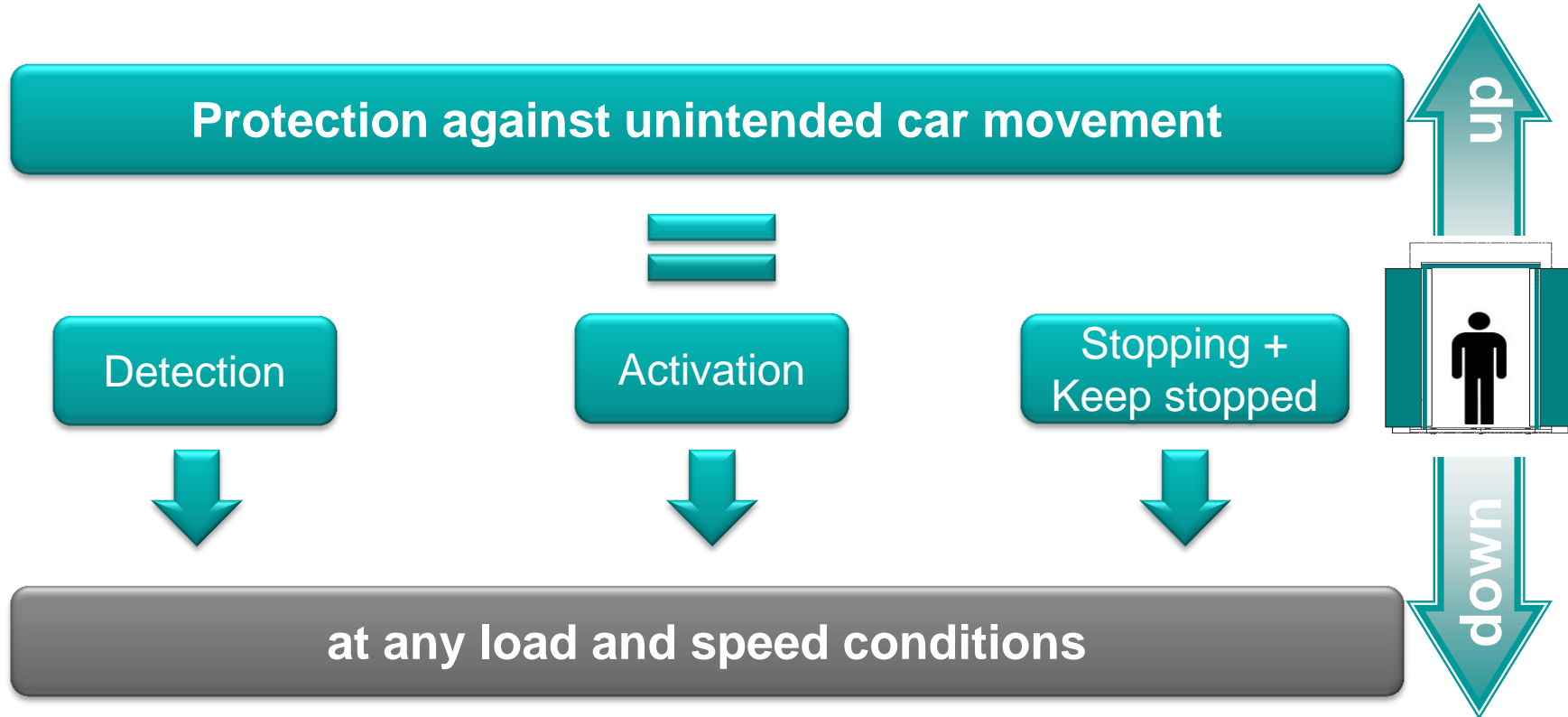
NUMBER OF ACCIDENTS SHOULD BE REDUCED!



The publication of the European Machinery Directive 2006/42/EC was one of the main reasons for the immediate implementation of the Amendment 3 of EN81- 1 / 2 :1998

“**UCM**” – Unintended car movement
is to be understood as **non –
commanded (unintended)** car
movement with **open landing doors**
away from the landing position!





Requirements (EN 81-1/2) + A3 - UCM

- Rated speed
- Fixing systems for guards
- Stopping and levelling accuracy
- Safety device against
unintended car movement UCM

> 0,15 m/s

Need to
remove
 ≤ 24 month

± 10 mm
 ± 20 mm

UCM
protection

Situation A3 – UCM in GERMANY

NEW INSTALLATIONS:

mandatory since 01.01.2012 (EU)

MODERNIZATION:

mandatory since 01.01.2012 (DE)
for important changes at existing
elevators



Under certain conditions UCM is also mandatory for the „Modification“ and „Fundamental modification“ of existing elevators in Germany (Decision in Germany by the DAfA in November 2011)

Situation in Germany

- Decision to have UCM for elevator modernization was published with a **short notice** and a **short transition period**
- This affected most modernization projects already agreed with customers, where UCM was not part of the scope of supply
- UCM developments were mainly available for new installations and **few packages could be used for modernization**
- Delivery times for safety devices became critical
- First installations of UCM with components from different suppliers were **difficult to certify** due to **interface issues**
- Notified bodies had **different interpretations** for UCM for new elevators and for modernization
- Clear description of UCM installation and testing were mainly missing, **no experience for calculation procedure and periodical tests procedure**

How Wittur reacted to support its customers

- Early start to obtain UCM certified components
- Certification process with notified bodies to introduce UCM solutions certified as packages
 - For electric elevators
 - For hydraulic elevators
- Wittur was the first company to supply a certified UCM package in May 2011
 - No certification of individual elevators required
 - No interface issues with different controllers
- Different UCM packages developed afterwards to meet different market demands

Wittur UCM Solution Package 1

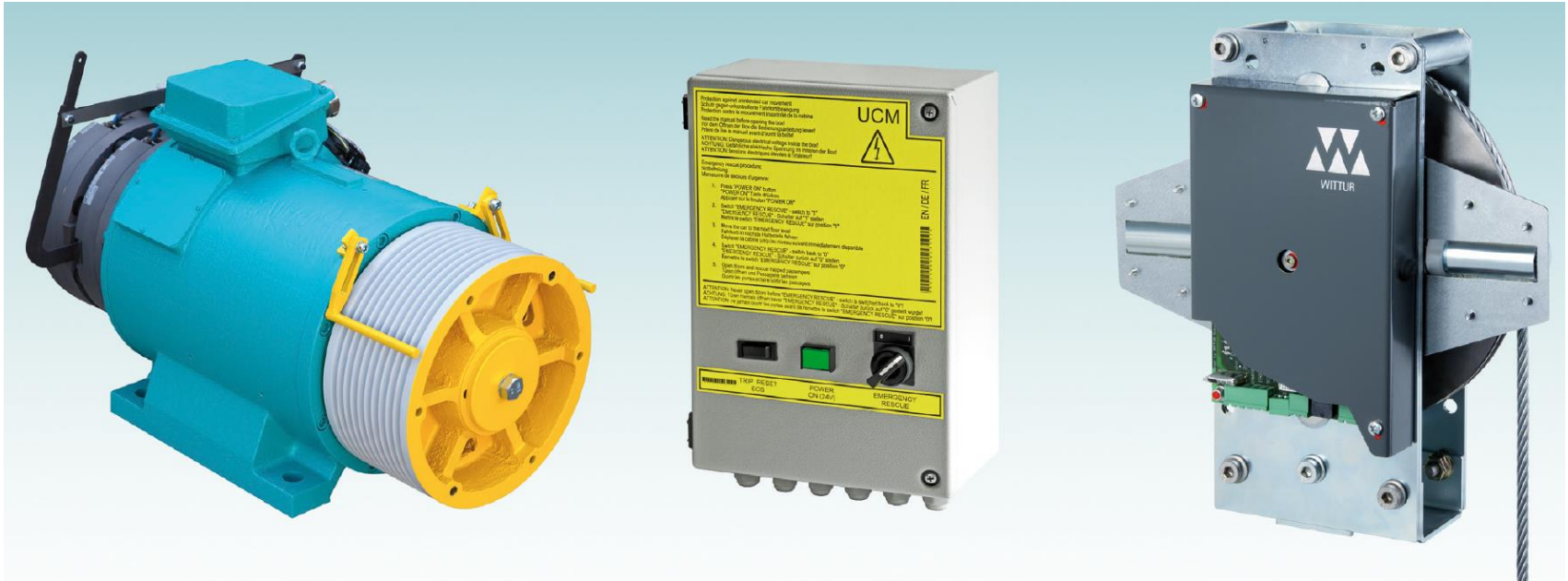


BSG-25P safety device

Interface box

**EOS electronic
overspeed governor**

Wittur UCM Solution Package 2



Gearless drive brake

Interface box

**EOS electronic
overspeed governor**

Wittur UCM Solution Package 3

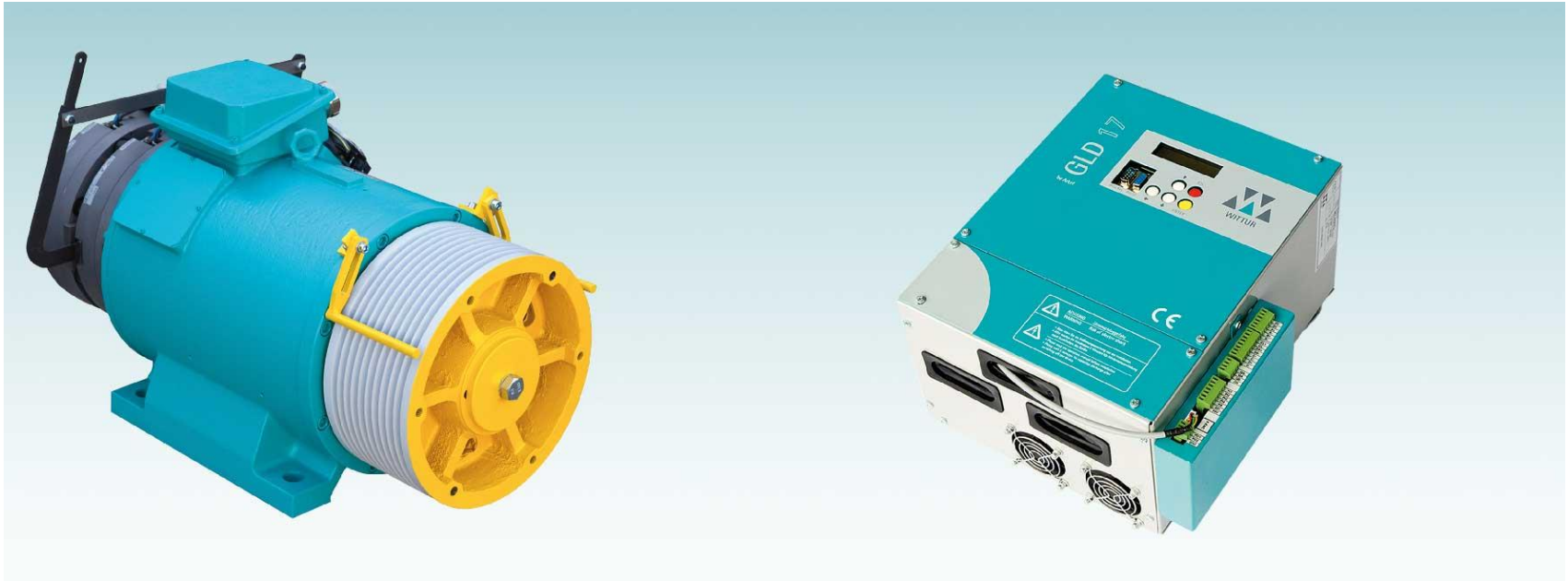


EBRA 20 safety device

Interface box

**EOS electronic
overspeed governor**

Wittur UCM Solution Package 4



Gearless drive brake

GLD frequency inverter

Wittur experience in UCM development



- **State of the art** Discuss and define the impact on the lift system with the notified body
- **Directives & norms** Define and fix the requested tests with the notified body
 - used components
 - theoretical calculations
 - testing procedure
- **Interfaces** Clarify and define the interfaces
- **Installation manual** Installation manual integrated with
 - installation of A3-UCM system
 - testing of A3-UCM function (first and recurring inspection)
- **Production control** Define and discuss a failure-safe production, testing and documentation process together with the notified body

Why packages and not single components?

UCM with components

- ▶ several individual components for “detection, stopping and keep stopped”
- ▶ Calculation of the complete system necessary
- ▶ several description of interfaces, connection to controller
- ▶ Installer has to describe the instruction for the complete system to notified body
- ▶ Installer has to describe the test instructions for the complete system to notified body

Certified UCM package

- ▶ Certified system for “detection, stopping and keep stopped”
- ▶ For new elevators and modernization
- ▶ Calculation of the complete system done by owner of certificate
- ▶ Instruction for use for the complete system done by owner of certificate
- ▶ test instructions for the complete system done by owner of certificate
- ▶ Possibility to be independent from the elevator controller

Recommendation

TYPE TESTED A3 – UCM packages are the preferred solution for both new installations and modernizations

- No certification required for each installed elevator, no descriptions, no calculation, no testing required for packages
- No paperwork for the installer
- Available and reliable systems
- Independent from the elevator controller
- Installation and testing procedures already established and agreed with notified bodies
- Shorter time for installation
- Different solutions available to meet every requirement

Thank you for your time and attention!



....I am very pleased to invite you to visit our booth in hall 7 / stand 7136
We'll be there!



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