

# Schüco Window AWS



SCHÜCO

# The challenge is...

...to view the energy crisis as an opportunity.

For a long time, environmental and energy-related issues were only of secondary importance in architecture. However, this situation has now changed substantially. Higher energy prices and the increasing scarcity of fossil fuels has made the energy-efficient planning of buildings more and more important, not least because the energy balance has a major impact on operating costs and therefore on the economic viability of a building. The energy crisis is therefore both an opportunity and an impetus for growth.

## Energy

The increasing importance of energy, also in view of the introduction of the energy passport, will alter the design of buildings. A large number of outstanding architectural examples demonstrate that climate concepts do not just reduce energy and building costs, they can also be attractively integrated into the design of a building. Window profiles, solar shading and anti-glare systems can be incorporated within a streamlined architecture or used as a deliberate stylistic device.

## Security

In addition to their basic job of protecting against the elements, heat and cold, buildings also provide a protective function that goes well beyond the security of individual building components. Buildings must provide their occupants with a feeling of safety and security, whether the dangers in question are real or imagined. However, this gives rise to a conflict in architecture: between the need for security on the one hand and the need for transparency on the other. In order not to trigger any feelings of distress or of being observed, security features must be incorporated as invisibly as possible, whether in the shape of biometric access controls or "invisible" SHEVS.

## Automation

Building automation offers new, previously unimagined possibilities. These now go beyond air conditioning units, heating and water treatment systems. With digital control technology, solar shading, glare protection, light control and air conditioning can be adjusted to suit individual needs, allowing not just the best possible protection against external weather conditions but also providing for a pleasant interior climate. Building technology must also be reliable and easy to operate.

## Design

And yet there is much more to design than form and styling: good design is a complex process combining various and often conflicting requirements including ergonomics, design, surface finish, durability, function, environmental protection and comfort. Reduction to the essentials means more, not less. It means greater focus on function and perfection of design. Greater focus on technology. And more communication with architects and planners.

# Schüco Window AWS - the new generation of windows

## Schüco Window AWS 50

Schüco Window AWS (Aluminium Window System) combines unique architectural and design features with functional benefits. With basic frame depths ranging from 50 to 75 mm and excellent thermal performance, the new system provides a complete solution for both architects and fabricators.

Maximum design freedom is ensured through an extended range of inward and outward opening windows and a variety of frame design and insulation options, while fabricators profit from a wider range of products utilising fewer but interchangeable components.

Slim sightlines from as little as 67 mm provide large glass areas, allowing the creation of elegant and streamlined façades with innovative concealed hardware. Operated manually or automatically via simple controls or a central building management system, these new fittings are complemented by the stylish, ergonomic and uniform handle range which won Schüco the Hannover Industrial Forum iF Award 2006.

The result? Interfaces between windows, doors and façades that are harmonised in both technology and appearance.

Together with energy-saving, design and automation benefits, the Schüco Window AWS system also meets the challenge of improved building security. With enhanced fittings and glazing, burglar-resistant units are able to meet security levels up to Class 3 of the new European standard BS EN 1627.



**Schüco AWS 50**  
Inward opening window



**Schüco AWS 50**  
Outward opening window

### Features

- Thermally insulated window system with basic frame depth of 50 mm
- Inward and outward opening units including top hung, side hung, tilt turn, pivot and top swing
- Typical frame U value ( $U_f$ ) 3.0 W/m<sup>2</sup>K
- Rounded (SL) and bevelled (RL) frame design options
- Comprehensive range of ancillary profiles including structural mullions, couplings, corner connections, sills and expansion joints
- Compatible with Schüco door range



**Schüco AWS 50**  
Thermally insulated frames  
with centre sealing gasket

## Schüco Window AWS 60 and AWS 65



**Schüco AWS 60**  
Inward opening window



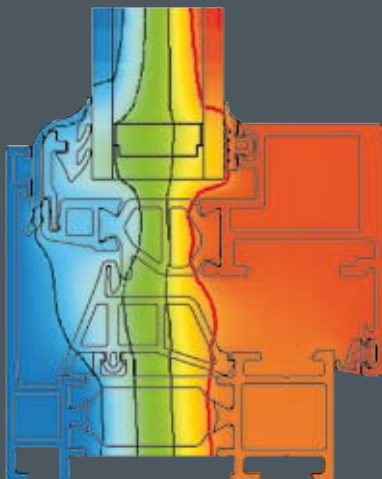
**Schüco AWS 60 BS**  
Concealed vent block system window



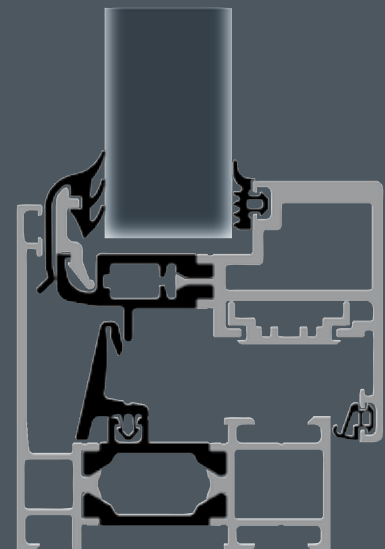
**Schüco AWS 60**  
Outward opening window with flush frame and vent



**Schüco AWS 65 RL**  
Residential Line window with exterior bevelled frames



**Schüco AWS 65 BS**  
High levels of thermal insulation thanks to hollow chamber insulating bar and multi-chamber centre gasket



**Schüco AWS 60 BS**  
Concealed vent window with slim face widths from 67 mm

### Features

- Thermally insulated window systems with basic frame depths of 60 mm and 65 mm
- Improved thermal performance plus High Insulation (HI) versions
- Typical frame U values ( $U_f$ ) from 2.6 W/m<sup>2</sup>K to 2.0 W/m<sup>2</sup>K
- Inward and outward opening units including top hung, side hung, tilt turn, pivot and top swing
- Wide choice of frame design options including bevelled (RL), rounded (SL) and concealed vent (BS)
- Security levels up to WK3
- TipTronic window operation possible
- Compatible with Schüco door range

## Schüco Window AWS 70 and AWS 75

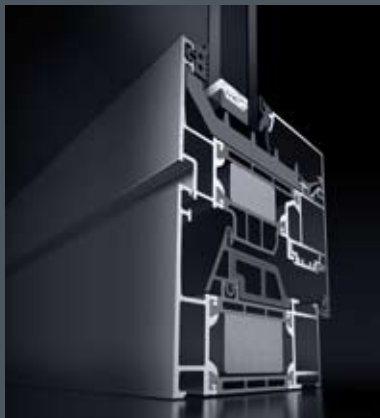


**Schüco AWS 70 SL.HI**  
Softline High Insulation window  
with rounded vent contour

### Schüco AWS 70

#### Features

- Thermally insulated window system with basic frame depth of 70 mm
- Increased thermal performance across the range with High Insulation (HI) profiles as standard
- Typical frame U value ( $U_f$ ) 1.6 W/m<sup>2</sup>K with 117 mm face width
- Full range of inward opening windows including crank handle operation for extra large elements
- Rounded (SL), bevelled (RL), steel look (ST), concealed vent (BS) and window façade (WF) frame design options
- Security levels up to WK3
- TipTronic option
- Compatible with Schüco door range



**Schüco AWS 75.SI**  
Super Insulation window with  
U value of 1.4 W/m<sup>2</sup>K

### Schüco AWS 75

#### Features

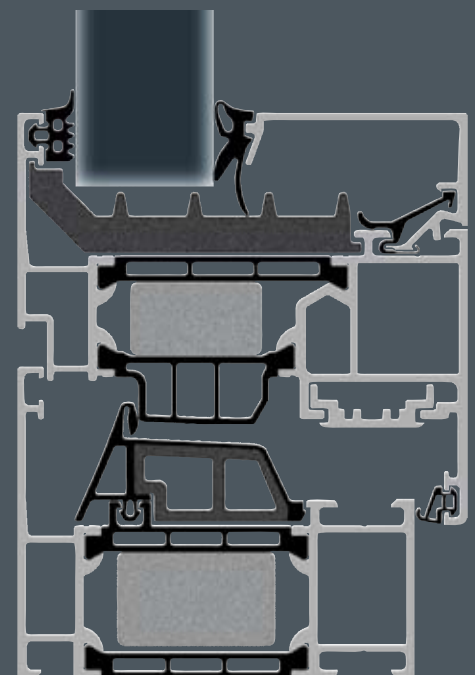
- Outstanding thermal insulation with basic frame depth of 75 mm
- Class-leading frame U values ( $U_f$ ) down to 1.4 W/m<sup>2</sup>K with 117 mm face width with top of the range Schüco AWS 75.SI
- Complete system of tilt turn, side hung and bottom hung inward opening windows
- Concealed vent (BS.HI) frame design option
- Security levels up to WK3
- TipTronic option



**Schüco TipTronic**  
The first fully mechatronic  
turn/tilt fitting. Burglar resistant to  
security class 2 with at least four  
security locking points



**Schüco AvanTec**  
This mechanical, concealed  
fitting offers the advantages of  
clear-cut styling. Burglar resistant  
to security classes 2 and 3

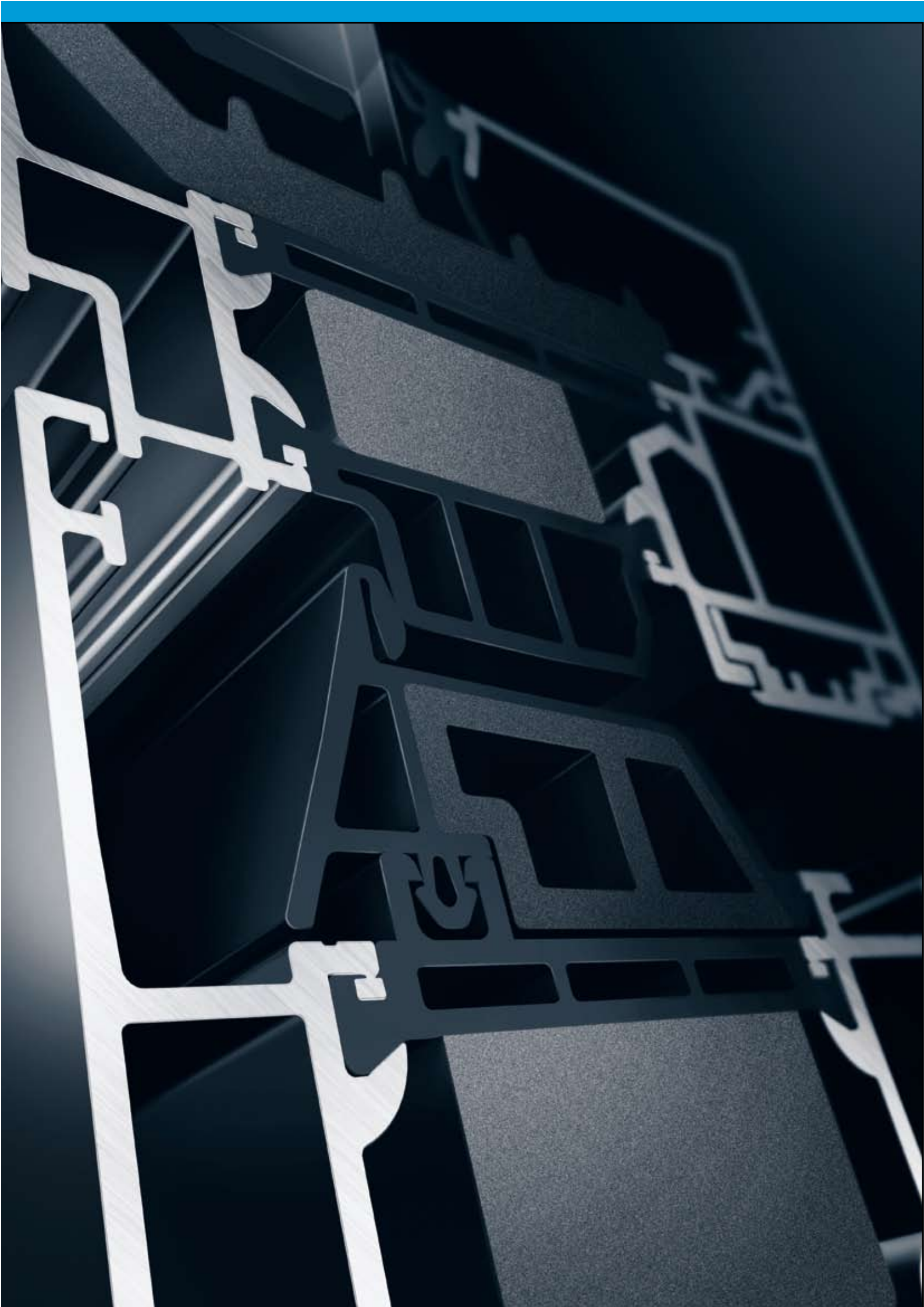


**Schüco AWS 75.SI**  
The new thermal insulation standard  
for aluminium windows

Schüco windows

AWS 50 AWS 50 RL AWS 50 SL AWS 60 AWS 60 RL AWS 60 SL AWS 60 BS AWS 60 HI AWS 60 SL HI AWS 65 AWS 65 RL AWS 65 SL AWS 65 BS AWS 70 HI AWS 70 RL HI AWS 70 SL HI AWS 70 BS HI AWS 70 ST HI AWS 70 WF HI AWS 75 SL AWS 75 BS HI

| Energy   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|
| Thermally insulated                              | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Highly thermally insulated                       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| U <sub>f</sub> values (Wm <sup>2</sup> /K)       | 3.0 | 3.1 | 3.0 | 2.6 | 2.6 | 2.6 | 2.5 | 2.0 | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 | 1.6 | 1.6 | 1.6 | 2.0 | 1.9 | 2.2 | 1.4 | 1.8 |   |   |   |   |   |
| Face width (mm)                                  | 117 | 117 | 117 | 117 | 117 | 117 | 89  | 117 | 117 | 117 | 117 | 117 | 89  | 117 | 117 | 117 | 89  | 99  | 82  | 117 | 89  |   |   |   |   |   |
| Design   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| <b>Basic depth</b>                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| 50 mm  | ■   |     | ■   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| 60 mm  |     | ■   |     | ■   | ■   | ■   | ■   | ■   | ■   |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| 65 mm  |     |     |     |     |     |     |     |     |     | ■   | ■   |     |     | ■   |     |     |     |     |     |     |     |   |   |   |   |   |
| 70 mm  |     |     |     |     |     | ■   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| 75 mm  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   | ■ | ■ |
| 80 mm  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| <b>Fittings</b>                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Schüco AvanTec concealed                         | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Schüco TipTronic concealed                       |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| <b>Design options</b>                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| SL (Softline)                                    |     |     | ■   |     |     | ■   |     |     | ■   |     |     |     | ■   |     |     |     | ■   |     |     |     |     |   |   |   |   |   |
| RL (Residential Line)                            |     | ■   |     |     | ■   |     |     |     |     |     | ■   |     |     |     |     | ■   |     |     |     |     |     |   |   |   |   |   |
| BS (Block System)                                |     |     |     |     |     |     | ■   |     |     |     |     |     | ■   |     |     |     | ■   |     |     |     |     |   |   |   |   | ■ |
| ST (Steel Contour)                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   | ■ |   |
| WF (Window Façade)                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   | ■ |   |
| Dual colour                                      | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| <b>Areas of use</b>                              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Compatible door system                           | ■   |     |     | ■   |     |     |     |     |     |     | ■   | ■   |     |     | ■   | ■   |     |     |     |     |     |   |   |   |   |   |
| Façade insert unit                               | ■   |     | ■   | ■   |     | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Window façade                                    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   | ■ |   |
| <b>Opening types</b>                             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| <b>Inward opening</b>                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Side-hung (SH), turn/tilt (TT), bottom hung (BH) | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Tilt-before turn (TbT)                           | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Double vent window                               | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Crank operated turn/tilt                         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Tilt/slide                                       | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Bottom-hung toplight                             | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Flush fitted as SH, TT, BH                       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| <b>Outward opening</b>                           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Side-hung, top-hung window                       | ■   |     |     | ■   |     |     |     |     |     | ■   |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Horizontal/vertical pivot window                 | ■   |     |     | ■   |     |     |     |     |     | ■   |     |     |     | ■   |     |     |     |     |     |     |     |   |   |   |   |   |
| Top swing window                                 | ■   |     |     | ■   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| <b>Security</b>                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Burglary resistance to BS V EN 1627              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Schüco AvanTec WK 1                              | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Schüco AvanTec WK 2                              |     |     |     | ■   | ■   | ■   |     | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Schüco AvanTec WK 3                              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Schüco TipTronic WK 1                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Schüco TipTronic WK 2                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Monitoring of opening and closing display        | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| <b>Automation</b>                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |   |   |   |
| Schüco TipTronic turn/tilt fitting               |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Schüco TipTronic toplight drive                  |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Group control                                    |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Bus automation                                   |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Automatic night-time cooling                     |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Automatic ventilation                            |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |
| Remote control                                   |     |     |     | ■   |     |     |     | ■   | ■   |     |     |     | ■   | ■   |     |     | ■   |     |     | ■   | ■   | ■ | ■ | ■ | ■ | ■ |



## Schüco – your partner for windows and solar products

As leading innovator in system-based construction, Schüco supplies components for the whole building envelope, including specialised software solutions for design, construction, calculation and fabrication.

■ Aluminium systems

■ Steel systems

■ Solar products

■ Schüco Design

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