

Northlights using VELUX Modular Skylights

<Classification code> modular skylight

Scope

The work includes the supply and installation of:

- Modular skylights, installed as northlights, incl. insulation and flashings.

Locations

The work includes skylights on <buildings x, y and z>.

Drawing reference

- <Master drawing x>
- <Plan drawing x>
- <Sectional drawing x>
- <Detail drawing x>

Coordination

Coordination is required with the following work:

- <Roof covering>
- <Roof construction>
- <Painting>
- <Sub-construction>
- <Electricity>

Adjacent building elements

Skylights are to be placed on a sub-construction <of steel; of concrete> erected under other work.

They are to be fixed to the existing building elements:

- <Sub-construction>
- <Roof covering>

The building elements will have the tolerances specified under "measurements and tolerances" in each building element description.

The following building elements and work will follow this building element:

- <Lightweight plasterboard partition walls>
- <Ceilings>
- <Painting - inner walls/ceilings>

Engineering (structural design?)

The following engineering (structural design?) material are to be prepared by the contractor:

- <>

All building materials are to be based on the manufacturer's principle details, dimensioning tables etc.

All engineering material is to be approved by the Site Manager before starting work.

The contractor shall expect participation in <x> project review meetings.

Examinations

The contractor shall check that building elements erected under "Adjacent building elements" are complete and that their surfaces are finished before starting work.

The contractor shall check the measurements of the sub-construction for length, width and diagonals, and check the vertical and horizontal planes of the building element before any work starts. If it is found that the conditions for correct execution do not exist, the Site Manager must be contacted immediately.

Materials and products

Modular skylights

Type:	Prefabricated northlights consisting of fixed and venting modular skylights with frames and sash in composite materials and aluminium caps.
Functionality:	Fixed, comfort and/or smoke ventilation. There must be no visible difference between fixed and venting modules once installed, and the chain actuator must be concealed in the module construction, so that it is not visible once the module has been installed.
Size:	<675-1000> mm x <1200-3000> mm
Materials:	Frame and sash in pultruded composite material consisting of glass fibre and polyurethane, <NCS S0500-N; RAL 9010> Aluminium cap, <Granite grey>.
U value:	max. <1.4> kw/m ² – based on reference field CE

marking <EN 14351-1:2006+A1:2010>.

Pane:	<Low energy glazing unit with sun protection>
Product tolerances:	+/- 2 mm on the external frame measurements - DS/ISO 2768-1
Wind load factor:	Class C5 - EN 12211 / EN 12210
Water tightness:	Class E900 – EN 12208 / EN 1027
Air permeability:	Class 4 – EN 12207 / EN 1026
Remote control:	Modules for comfort or smoke ventilation must be able to connect to BMS, ABA or ABV controls. The modules should be individually or collectively controllable via IO homecontrol, which can be overridden by a rain and wind sensor.

Flashings:

Type:	Prefabricated, modular standard flashings produced to fit the individual skylight modules.
Materials:	Aluminium
Surface:	Powder coated <NCS S 7500-N; RAL 7043>

All flashings must be pre-cut and shaped upon delivery.

Roller blinds:

Type:	Remote controlled roller blinds, made to fit the modular skylights.
Materials:	<Fire resistant cloth; textile> in <black; white; grey>.
Remote control:	Controlled by the same BMS or IO homecontrol as the windows.

Insulation

Type:	Mineral wool cut to fit the dimensions of the installation.
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Installation

Skylights are to be placed on a sub-construction <made of steel;made of concrete> erected under other work, as northlights angled at <x degrees>. Location of fixed and venting elements according to drawings. All fixings according to the supplier's instructions.

Insulation and flashing to be laid according to the supplier's instructions. No cutting of flashing to fit can be performed on the site. Insulation can be cut to

size on the site.

Connection of skylight modules and roller blinds will be performed <concurrently; subsequently> under other work.

Connection to outer and inner walls – incl. sealing – will be performed subsequently under other work.

All work and deliverables (including secondary jobs necessary to complete the work) belong under the building element.

Overruns of the above must be agreed with the Site Manager and according to the supplier's instructions.

Measurements and tolerances

The following measurements and tolerances for the building element must be observed.

- When the skylight modules have been installed the deflection must not exceed $1/400$ x the full length of the sub-construction perpendicular to the skylight modules and $1/700$ x the full length of the sub-construction parallel to the skylight modules.

The Site Manager must be informed immediately if they are exceeded.

Samples

The following samples for decision of surface and colour shall be supplied:

- Frame and sash profiles.
- Blinds.

Health, safety and the environment (Working environment?)

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Control

The contractor shall perform and record the following checks of the building element:

- Visual inspection
- That gaskets are facing the right way
- Check fixing to sub-construction - tighten up
- <According to the supplier's QA materials>

When the building element is completed, it shall be checked by the Site Manager before the work can be considered completed.

The contractor shall expect participation in <min. 1> project review meetings.

Operation and maintenance documentation

Upon handover of the building element, the contractor shall supply the following operation and maintenance documentation:

- Operation and maintenance guide
- Datasheets for all materials used
- Guarantee certificate
- Details of expected service life for the building element until restoration/replacement.
- <>

Planning and work documentation

The following materials shall be supplied to the Site Manager before installation starts:

- Installation plan.

The following materials shall be part of the product deliverables.

- Installation/handling instructions.