

ASSEMBLY INSTRUCTIONS

SOLON

STANDARD MODULES

SOLON Blue 230/07
SOLON Black 230/07 (01, 02)
SOLON Blue 220/03 (01, 07)
SOLON Black 280/10
SOLON Black 300/10
SOLON P220/6+/07
SOLON M230/6+/07 (01)
SOLON P220/6+
SOLON M230/6+
SOLON P180/6+
SOLON P130/6+

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Contents of the Assembly Instructions for Standard Modules by the SOLON SE

- **Assembly Instructions SOLON Standard Modules**
- **Assembly Instructions - Abstract**
- **Annex 1**
Snow Load on the Ground s_k (Snow Load Zones) According to DIN 1055 Part 5
- **Annex 2**
Speed Pressure (Wind Zones and Location of Site) according to DIN 1055 Sheet Part 4
- **Annex 3**
Allowable Snow Loads on the Ground $s_{k,allow}$ According to DIN 1055 (07/2005) for SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07, SOLON M230/6+/01

Sheet 1.1. – 1.2 :

Maximum support and attachment area (inserting system)
vertical assembly / pitched roof or slanted roof

Sheet 2.1. – 2.2 :

Maximum support and attachment area (inserting system)
vertical assembly / flat roof

Sheet 3.1. – 3.2 :

Maximum load capacity – Optimum support and attachment area
vertical assembly / pitched roof or slanted roof

Sheet 4.1. – 4.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / flat roof

Sheet 5.1. – 5.2 :

Only optimum support and attachment area allowed
horizontal assembly / pitched roof or slanted roof

Sheet 6.1. – 6.2 :

Only optimum support and attachment area allowed
horizontal assembly / flat roof

- **Annex 4**
Allowable Snow Loads on the Ground $s_{k,allow}$ for SOLON P220/6+ and SOLON M230/6+

Sheet 1.1. – 1.2 :

Maximum support and attachment area (inserting system)
vertical assembly / pitched roof or slanted roof

Sheet 2.1. – 2.2 :

Maximum support and attachment area (inserting system)
vertical assembly / flat roof

Sheet 3.1. – 3.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / pitched roof or slanted roof

Sheet 4.1. – 4.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / flat roof

Sheet 5.1. – 5.2 :

Only optimum support and attachment area allowed
horizontal assembly / pitched roof or slanted roof

Sheet 6.1. – 6.2 :

Only optimum support and attachment area allowed
horizontal assembly / flat roof

- **Annex 5**
Allowable Snow Loads on the Ground s_{kallow} for SOLON P180/6+

Sheet 1.1. – 1.2 :

Maximum support and attachment area (inserting system)
vertical assembly / pitched roof or slanted roof

Sheet 2.1. – 2.2 :

Maximum support and attachment area (inserting system)
vertical assembly / flat roof

Sheet 3.1. – 3.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / pitched roof or slanted roof

Sheet 4.1. – 4.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / flat roof

Sheet 5.1. – 5.2 :

Only optimum support and attachment area allowed
horizontal assembly / pitched roof or slanted roof

Sheet 6.1. – 6.2 :

Only optimum support and attachment area allowed
horizontal assembly / flat roof

- **Annex 6**
Allowable Snow Loads on the Ground s_{kallow} for SOLON P130/6+

Sheet 1.1. – 1.2 :

Maximum support and attachment area (inserting system)
vertical assembly / pitched roof or slanted roof

Sheet 2.1. – 2.2 :

Maximum support and attachment area (inserting system)
vertical assembly / flat roof

Sheet 3.1. – 3.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / pitched roof or slanted roof

Sheet 4.1. – 4.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / flat roof

Sheet 5.1. – 5.2 :

Only optimum support and attachment area allowed
horizontal assembly / pitched roof or slanted roof

Sheet 6.1. – 6.2 :

Only optimum support and attachment area allowed
horizontal assembly / flat roof

- **Annex 7**

Allowable Snow Loads on the Ground s_{kallow} for SOLON Black 280/10 and SOLON Black 300/10

Sheet 1.1. – 1.2 :

Maximum support and attachment area (inserting system)
vertical assembly / pitched roof or slanted roof

Sheet 2.1. – 2.2 :

Maximum support and attachment area (inserting system)
vertical assembly / flat roof

Sheet 3.1. – 3.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / pitched roof or slanted roof

Sheet 4.1. – 4.2 :

Maximum load capacity - Optimum support and attachment area
vertical assembly / flat roof

- **Annex 8**
Usage Instructions – Examples
- **Annex 9**
Check-list for Structural Engineer According to DIN 1055

ASSEMBLY INSTRUCTIONS SOLON STANDARD MODULES

SOLON modules may only be assembled by qualified specialist firms. Please observe the standards and regulations relevant for PV systems, like VDE regulations (German Association for Electrical, Electronic & Information Technologies), DIN standards, VDEW guideline (German Power Industries Association), the TAB (technical connection conditions) of the responsible network operators as well as the rules of the Employer's Liability Insurance Associations for industrial safety. Non-compliance may result in considerable personal injuries and damage to property.

The basis for the dimensioning, the rating and the constructive realization of solar systems with SOLON modules on roof constructions and support frames are the currently valid standards and regulations like **DIN 1055 Part 4 Wind Load** (Version March 2005) and **DIN 1055 Part 5 Snow Load** (Version July 2005). The new series of standards that have begun to govern the effects and load assumptions in Germany since January 2007, contain values for the formulation of wind and snow loads that are considerably more precise.

The **snow load on the ground s_k in kN/m² to be considered** in Germany results from the respective snow load zone, the location of the building and the ground level elevation above seal level (see [Annex 1](#) for snow load on the ground).

The **wind load to be considered** must be determined for the location of the project from the wind zones map which allows for the location of the site as well as for four wind zones. For buildings up to a height of 25 m, the wind load can be determined using a simplified procedure. Depending on the height of the building, the wind load is specified as **Speed Pressure q in kN/m²** ([Annex 2](#)).

In order to retain a practical default, the **allowable snow load to the ground s_{kallow}** must be taken from the tables and compared with the **snow load to the ground to be applied s_k** . The requirements for an assembly approval for the modules are met if the allowable snow load according to the table is larger than the snow load to be applied for the location of the assembly, thus **$s_{kallow} \geq s_k$** . Favorable assembly conditions will allow the use of the modules at the largest applicable wind and snow loads according to DIN 1055. In order to avoid increased stress on the modules in the edge zones and corner areas, it is necessary to maintain minimum distances from the edges of buildings or to carry out separate calculations.

The calculation results ([Annex 3 through 6](#)) are also based on the **DIN 1055-100, Effects on Supporting Structures** (March 2001) and the **DIN 4113, Aluminum Constructions** (September 2002). The effects resulting from the dead weight of the modules, wind and snow have not been considered individually, but have been combined with regard to their probability of occurrence.

Clearance of the depicted types of assembly is granted up to the **maximum resulting load carrying capacity of the surface in kg per m² of module surface** ([Table 1](#)) that is specified for the module type and which may not be exceeded. Depending on the support and attachment area (maximum or optimal) and on the arrangement of the modules (vertical or horizontal), the maximum resulting load carrying capacity of the surface can be determined.

Table 1: Maximum resulting load carrying capacity of the surface

Modul type	Vertical arrangement of the modules		Horizontal arrangement
	Maximum edition and Connection area (for example, inlaying System)	Optimum edition and connection area	Optimum edition and connection area
SOLON Blue 230/07	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON Black 230/07 (01, 02)	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON Blue 220/03 (01,07)	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON Black 280/10	≤ 135 kg/m ²	≤ 150 kg/m ²	≤ 135 kg/m ²
SOLON Black 300/10	≤ 135 kg/m ²	≤ 150 kg/m ²	≤ 135 kg/m ²
SOLON P220/6+/07	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON M230/6+/07	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON M230/6+/01	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON P220/6+	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON M230/6+	≤ 125 kg/m ²	≤ 155 kg/m ²	≤ 125 kg/m ²
SOLON P180/6+	≤ 150 kg/m ²	≤ 195 kg/m ²	≤ 150 kg/m ²
SOLON P130/6+	≤ 230 kg/m ²	≤ 275 kg/m ²	≤ 230 kg/m ²

1. Assembly of Modules on Pitched or Slanted Roofs (assembly parallel to the roof):

a) Vertical arrangement / assembly of the modules in the "M_s" area

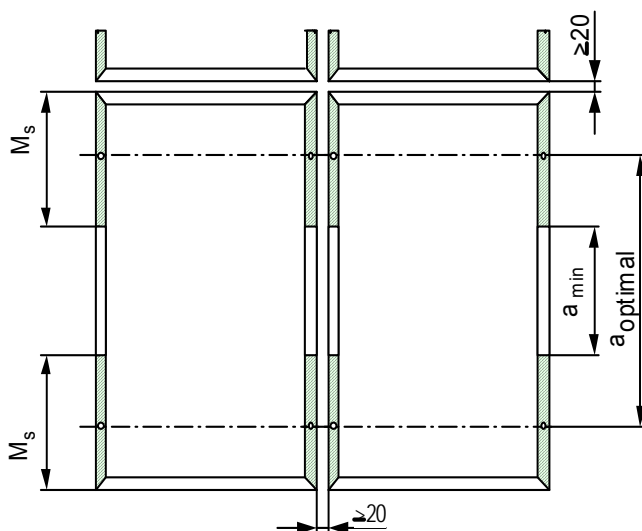



Figure 1: Horizontal girder profiles

 Required area for attachment and support

Attention!

The frame of the module must be attached to the rails of the substructure (girder profiles) at four points in the same plane in the area "M_s".

An attachment on the short spars is not allowed on principle.

Slip protection:

To protect the modules from slipping during the installation on an inclined plane, socket head cap screws are installed in the boreholes provided for this purpose (distance a_{optimal}) in the longitudinal spars. Securing the screws is accomplished with toothed lock washers and nuts or with self-locking nuts. Recommended: Screw DIN 912-M6x10VA with toothed lock washer DIN 6797-A6,4 and nut DIN 555-M6 VA.

Table 2: Assembly area "M_s" – vertical assembly

Standardmodule	L [mm]	B [mm]	a _{optimal} [mm]	a _{min} [mm]	M _s [mm]
SOLON Blue 230/07	1.640	1.000	980	510	565
SOLON Black 230/07 (01, 02)	1.640	1.000	980	510	565
SOLON Blue 220/03 (01, 07)	1.640	1.000	980	510	565
SOLON Black 280/10,	1.580	1.070	940	540	520
SOLON Black 300/10	1.580	1.070	940 <td 540	520	
SOLON P220/6+/07	1.640	1.000	980	510	565
SOLON M230/6+/07	1.640	1.000	980	510	565
SOLON M230/6+/01	1.640	1.000	980	510	565
SOLON P220/6+	1.660	990	1.000	530	565
SOLON M230/6+	1.660	990	1.000	530	565
SOLON P180/6+	1.660	830	1.000	530	565
SOLON P130/6+	1.500	680	900	470	515

Note!

Usage of an **Insertion System** (Figure 2) with support of the modules on the outer edge of the long spars constitutes the most extreme stress foe a module, but is approved however if the module is attached or supported at 4 points of the long spars in the **required area for attachment and support**.

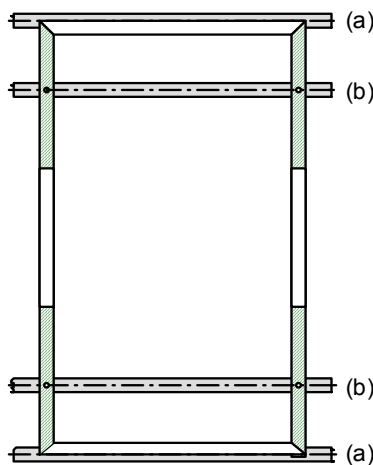


Figure 2: Insertion profiles (a) Girder profiles (b) horizontal

b) Horizontal arrangement / assembly of the modules in the "M_w" area

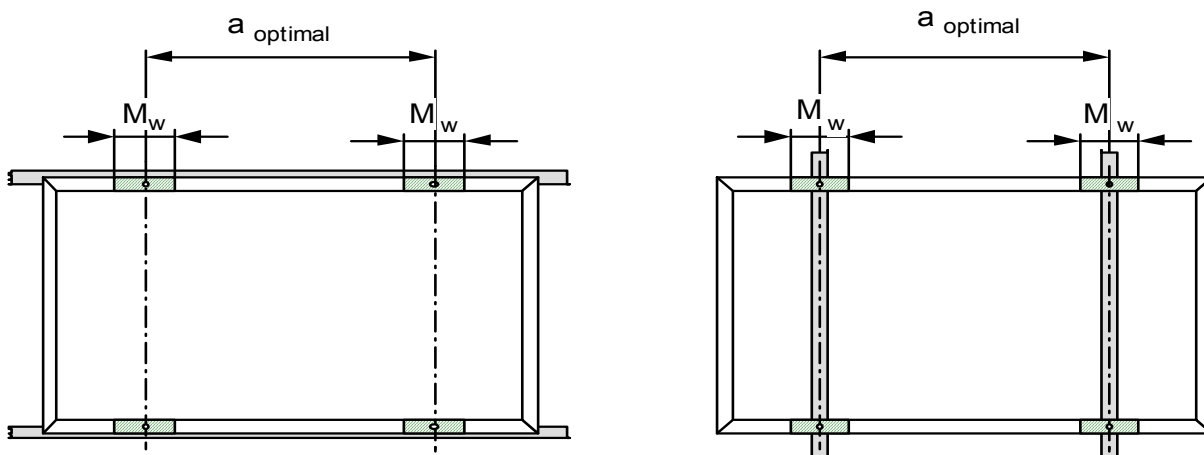


Figure 3: Horizontal insertion profiles

Figure 4: Vertical girder profiles

Attention!

When installing modules horizontally, approval is only given for the optimal attachment area " M_w ", irregardless of the assembly system.

The frame of the module must be connected to the rails of the substructure (girder profiles) at four points in the area " M_w ".

Table 3: Assembly area " M_w " – horizontal assembly

Standardmodule	L [mm]	B [mm]	$a_{optimal}$ [mm]	M_w [mm]
SOLON Blue 230/07	1.640	1.000	980	150
SOLON Black 230/07 (01, 02)	1.640	1.000	980	150
SOLON Blue 220/03 (01, 07)	1.640	1.000	980	150
SOLON Black 280/10,	1.580	1.070	940	145
SOLON Black 300/10	1.580	1.070	940	145
SOLON P220/6+/07	1.640	1.000	980	150
SOLON M230/6+/07	1.640	1.000	980	150
SOLON M230/6+/01	1.640	1.000	980	150
SOLON P220/6+	1.660	990	1.000	150
SOLON M230/6+	1.660	990	1.000	150
SOLON P180/6+	1.660	830	1.000	200
SOLON P130/6+	1.500	680	900	300

2. Assembly of Modules on Flat Roofs (installation on supports, assembly non-parallel to the roof):

When installing modules on flat roofs, it is recommended to use a substructure which provides an optimal support in the area of the slip protection boreholes without special efforts.

Depending on the type of assembly (horizontal or vertical), the frame of the module must always be attached (without deformation) to the rails of the substructure (girder profiles) at four points in one plane in the respectively specified installation area " M_w " or " M_s ". Otherwise the details from "Assembly of Modules on Pitched or Slanted Roofs" (Item 1.) apply.

3. General Notes

When using commercially available assembly systems, minimal stress for the modules is achieved by optimal positioning of the mounting rails as well as support and attachment in the area of the boreholes (distance $a_{optimal}$)! At this, it is always assumed that the commercially available assembly systems that are used, which can not be considered in the assembly instructions, correspond to the latest state of technology. The dimensioning of the substructure must be realized in a way that allows deflection of $l/200$, but not exceeding a maximum of 15 mm. Make sure that the roof construction itself is suitable!

Attachment directly on the frame (using the slip protection boreholes of the long spar) with high-strength bolts M6 made of stainless steel without pre-stressing is allowed if washers with a diameter of at least 14 mm are used and the connection is carried out without stress.

Attention! When attaching the modules, bear in mind that the material expands with temperature changes. Therefore, we recommend a minimum distance of 20 mm between modules.

Modules may not be allowed to stand in water. Rain and snowmelt must be allowed to drain freely. Drainage boreholes may not be used for the assembly.

The entrance of the modules can cause irreparable damages. These damages are not secured by the product guarantee and achievement guarantee.

Should it be required by the circumstances, for instance for personal protection measures when using transformer-less d.c/a.c converters according to the instructions of the converter manufacturer, the SOLON modules provide a possibility to connect potential equalization cables for grounding all metallic components of an electrical system (each individual module frame) with the 4.5 mm boreholes in all 4 spars.

Alternatively the slip protection boreholes can be used for this too if they are not needed (e.g. in insertion systems).

Subject to technical changes. The assembly instructions are only valid in combination with the data sheets, the general terms and conditions and the warranty and performance guarantees of the SOLON PV GmbH and SOLON Nord GmbH in their respectively valid version. SOLON does not assume liability for these assembly instructions and possible consequential damage, with the exception of the liability regarding product liability law and the liability resulting from deliberate acts and gross negligence.

Detailed calculation results of the allowable snow loads s_{kallow} for the modules SOLON BLUE 230/07, SOLON BLACK 230/07 (01, 02), SOLON Blue 220/03 (01,07), SOLON P220/6+/07, SOLON M230/6+/07, SOLON M230/6+/01, SOLON P220/6+, SOLON P180/6+ und SOLON P130/6+ are described in the Annexes 3 through 6 for the following assembly variants:

1. Vertical assembly of the modules

- Maximum attachment and support area (pitched roof) (Annexes 3-6, sheets 1.1 and 1.2)
- Maximum attachment and support area (flat roof) (Annexes 3-6, sheets 2.1 and 2.2)
- Optimum attachment and support area (pitched roof) (Annexes 3-6, sheets 3.1 and 3.2)
- Optimum attachment and support area (flat roof) (Annexes 3-6, sheets 4.1 and 4.2)

2. Horizontal assembly of the modules

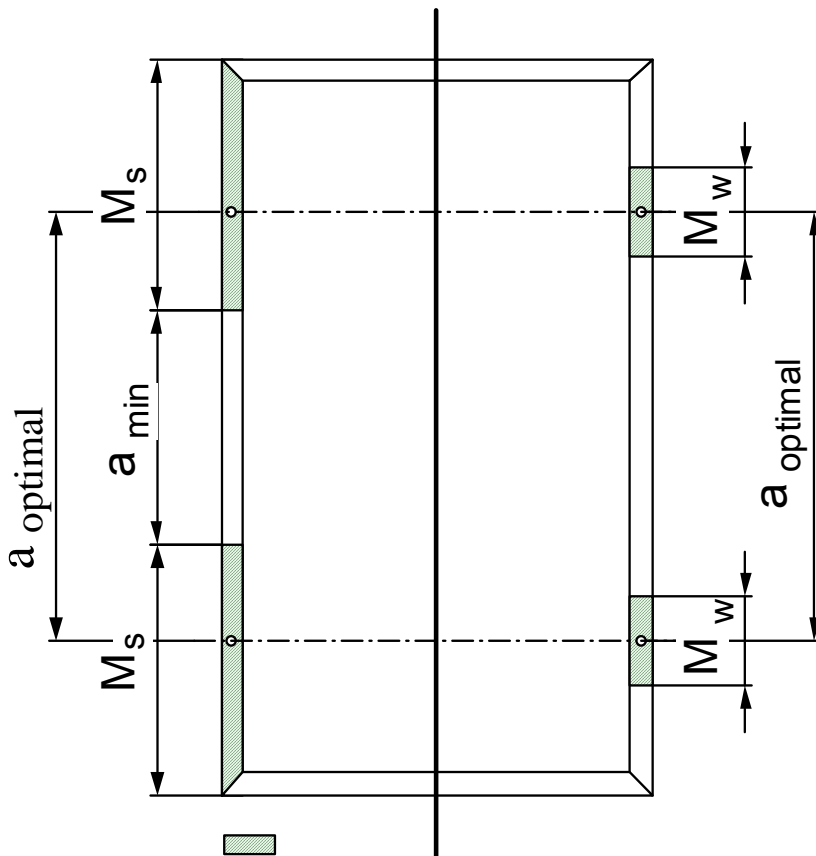
- Only optimum attachment and support area (pitched roof) (Annexes 3-6, sheets 5.1 and 5.2)
- Only optimum attachment and support area (flat roof) (Annexes 3-6, sheets 6.1 and 6.2)

In case of questions or lack of clarity, the specialist firms carrying out the assembly can directly refer to their contractual partner or an accredited structural engineer. SOLON can name the respective experts upon request. Please also use the checklist "**Technical Dimensioning Guide for the Assembly of SOLON Modules**" for this. You can find details for this on our homepage (www.solonag.com).

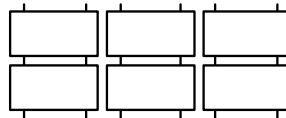
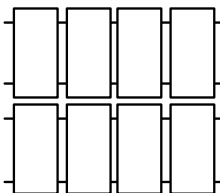
ABSTRACT OF THE ASSEMBLY INSTRUCTIONS FOR SOLON STANDARD MODULES

Approval of the assembly methods shown here is only given up to the specified **resulting load carrying capacity of the surface in kN per m² of module surface**, which can be found in the assembly instructions for the respective module (Table 1). This is the basis for the calculation of the **allowable snow load on the ground s_{kallow}** (Annexes 3 through 6 of the Assembly instructions). All results conform to the currently valid standards and regulations (e.g. wind load according to DIN 1055- Part 4 (03/2005) and snow load according to DIN 1055-Part 5 (07/2005)).

1. Vertical Assembly 2. Horizontal Assembly



Required area for attachment and support



Horizontal girder profiles

Vertical girder profiles

The frame of the module must be connected without deformation at four points in the areas " M_s " and " M_w ", respectively, to the rails of the substructure (girder profiles). An attachment to the short spars is not allowed on principle.

Standardmodule	L [mm]	B [mm]	a _{optimal} [mm]	a _{min} [mm]	M _ς [mm]	M _w [mm]
SOLON Blue 230/07	1.640	1.000	980	510	565	150
SOLON Black 230/07 (01, 02)	1.640	1.000	980	510	565	150
SOLON Blue 220/03 (01, 07)	1.640	1.000	980	510	565	150
SOLON Black 280/10	1.580	1.070	940	540	520	145
SOLON Black 300/10	1.580	1.070	940	540	520	145
SOLON P220/6+/07	1.640	1.000	980	510	565	150
SOLON M230/6+/07	1.640	1.000	980	510	565	150
SOLON M230/6+/01	1.640	1.000	980	510	565	150
SOLON P220/6+	1.660	990	1.000	530	565	150
SOLON M230/6+	1.660	990	1.000	530	565	150
SOLON P180/6+	1.660	830	1.000	530	565	200
SOLON P130/6+	1.500	680	900	470	515	300

Follow please the detailed assembly tips under www.solon.com

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Annex 1

Snow load on the ground s_k in kN/m² according to DIN 1055 (Part 5) depending on the snow load zone and the ground level elevation of the location of the building above sea level (m)

Ground elevation of the building site above sea level (m)	Snow load zone s_k (kN/m ²)				
	1	1a	2	2a	3
<200	0.65	0.81	0.85	1.06	1.10
300	0.65	0.81	0.89	1.11	1.29
400	0.65	0.81	1.21	1.51	1.78
500	0.84	1.05	1.60	2.00	2.38
600	1.05	1.30	2.06	2.58	3.08
700	1.30	1.59	2.58	3.24	3.86
800	1.59	1.99	3.17	3.97	4.76
900	-	-	3.82	4.79	5.76
1000	-	-	4.55	5.69	6.86
1100	-	-	5.34	6.68	8.06
1200	-	-	6.19	7.74	9.36
1300	-	-	-	-	10.76
1400	-	-	-	-	12.26
1500	-	-	-	-	13.88

Note: Determination of the snow load zone for sites in Germany is possible at: [www.dibt.de/de/Data/Schneelastzonen nach Verwaltungsgrenzen.xls](http://www.dibt.de/de/Data/Schneelastzonen_nach_Verwaltungsgrenzen.xls)

Annex 2

Speed pressure q in kN/m² according to DIN 1055 (Part 4) depending on the wind zone and the location of the site as well as the height of the building h (simplified procedure for building heights up to 25 m. On islands in the North Sea, this table applies only for buildings up to 10 m)

Wind zone and location of site		Speed pressure q in kN/m ² for building heights h within the limits of		
		up to 10 m	above 10 m up to 18 m	above 18 m up to 25 m
1	inland	0.50	0.65	0.75
2	inland	0.65	0.80	0.90
	Baltic Sea coast / islands	0.85	1.00	1.10
3	inland	0.80	0.95	1.10
	Baltic Sea coast / islands	1.05	1.20	1.30
4	inland	0.95	1.15	1.30
	North Sea coast Baltic Sea coast / islands	1.25	1.40	1.55
	North Sea islands	1.40	-	-

Note: Determination of the wind zone for sites in Germany is possible at: [www.dibt.de/de/Data/Windzonen nach Verwaltungsgrenzen.xls](http://www.dibt.de/de/Data/Windzonen_nach_Verwaltungsgrenzen.xls)

Annex 3 Sheet 1.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.42	1.43	1.44	1.46	1.47	1.48	1.49	1.50	1.51	1.52
20°	1.54	1.55	1.57	1.58	1.60	1.62	1.64	1.66	1.69	1.71
30°	1.74	1.83	1.93	2.04	2.16	2.29	2.44	2.60	2.78	2.99
40°	3.22	3.48	3.77	4.11	4.50	4.95	5.50	6.12	6.90	7.83
50°	8.94	10.37	12.20	14.54	17.81	22.49	29.39	41.43	66.03	137.18
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.41	1.42	1.43	1.44	1.45	1.47	1.47	1.48	1.49	1.50
20°	1.51	1.53	1.54	1.55	1.57	1.59	1.61	1.63	1.65	1.67
30°	1.70	1.79	1.88	1.99	2.10	2.23	2.37	2.53	2.70	2.90
40°	3.12	3.36	3.65	3.97	4.34	4.77	5.29	5.90	6.64	7.53
50°	8.60	9.97	11.72	13.96	17.09	21.57	28.19	39.71	63.26	131.37
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.39	1.40	1.41	1.42	1.44	1.45	1.46	1.46	1.47	1.48
20°	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.59	1.62	1.64
30°	1.66	1.74	1.83	1.93	2.05	2.17	2.30	2.45	2.62	2.80
40°	3.02	3.25	3.52	3.83	4.18	4.59	5.09	5.67	6.38	7.23
50°	8.25	9.57	11.24	13.39	16.37	20.66	26.98	37.99	60.50	125.56
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.38	1.39	1.40	1.41	1.42	1.44	1.44	1.45	1.45	1.46
20°	1.47	1.48	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.60
30°	1.62	1.70	1.79	1.88	1.99	2.10	2.23	2.38	2.53	2.71
40°	2.91	3.13	3.39	3.69	4.02	4.41	4.89	5.44	6.12	6.93
50°	7.91	9.16	10.76	12.81	15.66	19.74	25.77	36.28	57.73	119.75
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.37	1.38	1.39	1.40	1.41	1.43	1.43	1.44	1.44	1.45
20°	1.46	1.47	1.48	1.49	1.50	1.51	1.53	1.54	1.56	1.58
30°	1.60	1.68	1.76	1.86	1.96	2.07	2.20	2.34	2.49	2.67
40°	2.86	3.08	3.33	3.62	3.94	4.32	4.79	5.33	5.99	6.78
50°	7.74	8.96	10.52	12.52	15.30	19.29	25.17	35.42	56.34	116.85
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON BLUE 230/07, SOLON BLACK 230/07 (01, 02), SOLON Blue 220/03 (01,07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 1.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.36	1.37	1.38	1.39	1.41	1.42	1.42	1.43	1.43	1.44
20°	1.45	1.45	1.46	1.47	1.49	1.50	1.51	1.53	1.54	1.56
30°	1.58	1.66	1.74	1.83	1.93	2.04	2.16	2.30	2.45	2.62
40°	2.81	3.02	3.27	3.55	3.86	4.23	4.69	5.21	5.86	6.63
50°	7.57	8.76	10.28	12.23	14.94	18.83	24.57	34.56	54.96	113.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.35	1.36	1.37	1.38	1.39	1.40	1.40	1.41	1.41	1.42
20°	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.51	1.52
30°	1.54	1.61	1.69	1.78	1.87	1.98	2.09	2.22	2.37	2.53
40°	2.71	2.91	3.14	3.40	3.70	4.05	4.48	4.98	5.60	6.34
50°	7.22	8.35	9.80	11.65	14.23	17.91	23.36	32.84	52.19	108.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.33	1.34	1.35	1.36	1.37	1.39	1.39	1.39	1.39	1.40
20°	1.40	1.41	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.49
30°	1.50	1.57	1.64	1.73	1.82	1.91	2.03	2.15	2.28	2.43
40°	2.61	2.79	3.01	3.26	3.54	3.87	4.28	4.76	5.34	6.04
50°	6.88	7.95	9.32	11.07	13.51	17.00	22.15	31.12	49.42	102.33
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.32	1.33	1.34	1.35	1.37	1.38	1.38	1.38	1.38	1.39
20°	1.39	1.39	1.40	1.41	1.41	1.42	1.43	1.44	1.45	1.47
30°	1.48	1.55	1.62	1.70	1.79	1.88	1.99	2.11	2.24	2.39
40°	2.56	2.74	2.95	3.19	3.46	3.78	4.18	4.64	5.21	5.89
50°	6.70	7.75	9.08	10.78	13.15	16.54	21.55	30.26	48.04	99.42
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.31	1.32	1.33	1.34	1.35	1.36	1.36	1.36	1.36	1.36
20°	1.37	1.37	1.37	1.38	1.38	1.39	1.40	1.41	1.42	1.43
30°	1.44	1.50	1.57	1.65	1.73	1.82	1.92	2.04	2.16	2.30
40°	2.45	2.62	2.82	3.05	3.30	3.60	3.98	4.41	4.95	5.59
50°	6.36	7.34	8.60	10.20	12.44	15.63	20.34	28.54	45.27	93.61
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 2.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.12	1.13	1.14	1.15	1.16	1.17	1.17	1.18	1.19	1.20
20°	1.20	1.21	1.23	1.24	1.25	1.26	1.28	1.29	1.31	1.33
30°	1.35	1.42	1.49	1.58	1.67	1.77	1.88	2.00	2.14	2.30
40°	2.47	2.67	2.89	3.15	3.44	3.78	4.20	4.67	5.26	5.97
50°	6.82	7.91	9.31	11.09	13.57	17.14	22.40	31.57	50.31	104.50
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.06	1.07	1.08	1.08	1.09	1.11	1.11	1.11	1.12	1.12
20°	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.22	1.23
30°	1.25	1.31	1.38	1.45	1.54	1.62	1.73	1.84	1.96	2.10
40°	2.25	2.43	2.63	2.86	3.11	3.42	3.79	4.22	4.75	5.39
50°	6.15	7.13	8.38	9.98	12.21	15.40	20.12	28.34	45.12	93.67
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.05	1.05
20°	1.06	1.06	1.07	1.08	1.08	1.09	1.10	1.11	1.12	1.14
30°	1.15	1.21	1.26	1.33	1.40	1.48	1.57	1.67	1.78	1.90
40°	2.04	2.19	2.37	2.57	2.79	3.06	3.39	3.77	4.24	4.80
50°	5.48	6.35	7.45	8.87	10.84	13.66	17.83	25.10	39.93	82.83
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.94	0.94	0.95	0.96	0.97	0.98	0.98	0.98	0.98	0.98
20°	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.03	1.04
30°	1.05	1.10	1.15	1.21	1.27	1.34	1.42	1.50	1.59	1.70
40°	1.82	1.95	2.10	2.28	2.47	2.70	2.99	3.32	3.73	4.22
50°	4.81	5.56	6.53	7.76	9.47	11.93	15.55	21.86	34.75	72.00
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.91	0.91	0.92	0.93	0.94	0.94	0.94	0.94	0.94	0.95
20°	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.98	0.98	0.99
30°	1.00	1.04	1.09	1.15	1.20	1.27	1.34	1.42	1.50	1.60
40°	1.71	1.83	1.97	2.13	2.31	2.52	2.79	3.10	3.47	3.93
50°	4.47	5.17	6.06	7.20	8.79	11.06	14.41	20.24	32.15	66.58
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 2.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.87	0.88	0.89	0.90	0.90	0.91	0.91	0.91	0.91	0.91
20°	0.91	0.91	0.91	0.92	0.92	0.92	0.93	0.93	0.94	0.94
30°	0.95	0.99	1.04	1.08	1.14	1.20	1.26	1.33	1.41	1.50
40°	1.60	1.71	1.84	1.99	2.15	2.34	2.59	2.87	3.22	3.64
50°	4.14	4.78	5.60	6.65	8.10	10.19	13.27	18.62	29.56	61.16
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.81	0.82	0.82	0.83	0.84	0.85	0.84	0.84	0.84	0.84
20°	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.85
30°	0.85	0.88	0.92	0.96	1.01	1.05	1.11	1.17	1.23	1.30
40°	1.38	1.47	1.58	1.69	1.83	1.98	2.18	2.42	2.71	3.05
50°	3.47	4.00	4.67	5.54	6.74	8.45	10.98	15.39	24.37	50.32
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.75	0.76	0.76	0.77	0.78	0.78	0.78	0.77	0.77	0.77
20°	0.76	0.76	0.76	0.76	0.75	0.75	0.75	0.75	0.75	0.75
30°	0.75	0.78	0.81	0.84	0.87	0.91	0.95	1.00	1.05	1.10
40°	1.17	1.24	1.31	1.40	1.50	1.62	1.78	1.97	2.20	2.47
50°	2.80	3.22	3.75	4.43	5.37	6.72	8.70	12.15	19.18	39.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.72	0.72	0.73	0.74	0.74	0.75	0.75	0.74	0.74	0.73
20°	0.73	0.72	0.72	0.72	0.71	0.71	0.71	0.70	0.70	0.70
30°	0.70	0.72	0.75	0.78	0.81	0.84	0.87	0.91	0.96	1.00
40°	1.06	1.12	1.18	1.26	1.34	1.44	1.58	1.74	1.94	2.18
50°	2.46	2.82	3.28	3.87	4.69	5.85	7.56	10.53	16.59	34.07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.66	0.66	0.67	0.67	0.68	0.69	0.68	0.67	0.67	0.66
20°	0.65	0.65	0.64	0.63	0.63	0.62	0.62	0.61	0.61	0.60
30°	0.60	0.62	0.63	0.65	0.67	0.69	0.72	0.75	0.77	0.81
40°	0.84	0.88	0.92	0.97	1.02	1.08	1.18	1.29	1.43	1.59
50°	1.79	2.04	2.36	2.76	3.32	4.11	5.28	7.30	11.40	23.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical

Annex 3 Sheet 3.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity – Optimum support and attachment area

Speed pressure $q = 0.65 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.71	1.72	1.73	1.75	1.76	1.78	1.79	1.80	1.82	1.83
20°	1.85	1.87	1.89	1.91	1.93	1.95	1.98	2.01	2.04	2.07
30°	2.11	2.22	2.34	2.47	2.62	2.78	2.96	3.17	3.39	3.64
40°	3.92	4.24	4.60	5.02	5.49	6.05	6.72	7.49	8.43	9.57
50°	10.94	12.69	14.93	17.79	21.79	27.51	35.97	50.71	80.82	167.90
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.69	1.70	1.72	1.73	1.75	1.76	1.77	1.78	1.80	1.81
20°	1.82	1.84	1.86	1.88	1.90	1.92	1.95	1.98	2.00	2.03
30°	2.07	2.18	2.29	2.42	2.57	2.72	2.90	3.09	3.30	3.55
40°	3.82	4.12	4.48	4.88	5.33	5.87	6.51	7.26	8.17	9.27
50°	10.59	12.28	14.45	17.21	21.07	26.60	34.76	48.99	78.05	162.09
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.68	1.69	1.70	1.71	1.73	1.75	1.75	1.76	1.78	1.79
20°	1.80	1.82	1.83	1.85	1.87	1.89	1.92	1.94	1.97	2.00
30°	2.03	2.13	2.24	2.37	2.51	2.66	2.83	3.01	3.22	3.45
40°	3.72	4.01	4.35	4.74	5.17	5.69	6.31	7.03	7.91	8.97
50°	10.25	11.88	13.97	16.63	20.35	25.68	33.56	47.27	75.28	156.28
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.66	1.67	1.68	1.70	1.71	1.73	1.74	1.75	1.76	1.77
20°	1.78	1.79	1.81	1.83	1.84	1.86	1.88	1.91	1.93	1.96
30°	1.99	2.09	2.20	2.32	2.45	2.59	2.76	2.94	3.14	3.36
40°	3.62	3.90	4.22	4.60	5.01	5.51	6.11	6.80	7.65	8.68
50°	9.90	11.48	13.49	16.06	19.64	24.77	32.35	45.55	72.51	150.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.65	1.66	1.68	1.69	1.71	1.72	1.73	1.74	1.75	1.76
20°	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.89	1.91	1.94
30°	1.97	2.07	2.17	2.29	2.42	2.56	2.72	2.90	3.09	3.32
40°	3.57	3.84	4.16	4.52	4.93	5.42	6.01	6.69	7.52	8.53
50°	9.73	11.27	13.25	15.77	19.28	24.31	31.74	44.69	71.13	147.57
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 3.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.64	1.66	1.67	1.68	1.70	1.71	1.72	1.73	1.74	1.75
20°	1.76	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.90	1.92
30°	1.95	2.04	2.15	2.26	2.39	2.53	2.69	2.86	3.05	3.27
40°	3.51	3.78	4.10	4.45	4.85	5.33	5.91	6.58	7.39	8.38
50°	9.56	11.07	13.01	15.48	18.92	23.86	31.14	43.83	69.74	144.67
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.63	1.64	1.65	1.67	1.68	1.70	1.70	1.71	1.72	1.72
20°	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84	1.86	1.88
30°	1.91	2.00	2.10	2.21	2.34	2.47	2.62	2.79	2.97	3.18
40°	3.41	3.67	3.97	4.31	4.70	5.15	5.71	6.35	7.13	8.08
50°	9.21	10.67	12.53	14.90	18.21	22.94	29.93	42.11	66.97	138.86
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.61	1.63	1.64	1.65	1.67	1.68	1.69	1.69	1.70	1.70
20°	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84
30°	1.87	1.96	2.05	2.16	2.28	2.41	2.55	2.71	2.89	3.09
40°	3.31	3.56	3.84	4.17	4.54	4.97	5.50	6.12	6.87	7.78
50°	8.87	10.26	12.05	14.32	17.49	22.03	28.73	40.39	64.20	133.05
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.61	1.62	1.63	1.64	1.66	1.67	1.68	1.68	1.69	1.69
20°	1.70	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.81	1.83
30°	1.85	1.93	2.03	2.13	2.25	2.38	2.52	2.67	2.84	3.04
40°	3.26	3.50	3.78	4.10	4.46	4.88	5.40	6.01	6.74	7.63
50°	8.70	10.06	11.81	14.03	17.13	21.57	28.12	39.53	62.82	130.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.59	1.60	1.61	1.63	1.64	1.66	1.66	1.66	1.67	1.67
20°	1.68	1.68	1.69	1.70	1.71	1.73	1.74	1.75	1.77	1.79
30°	1.81	1.89	1.98	2.08	2.19	2.31	2.45	2.60	2.76	2.95
40°	3.16	3.39	3.65	3.96	4.30	4.70	5.20	5.78	6.48	7.34
50°	8.35	9.66	11.32	13.45	16.41	20.66	26.91	37.81	60.05	124.34
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 4.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0.65 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.50
20°	1.52	1.53	1.54	1.56	1.58	1.60	1.62	1.64	1.66	1.69
30°	1.72	1.81	1.90	2.01	2.13	2.26	2.41	2.57	2.74	2.95
40°	3.18	3.43	3.72	4.06	4.43	4.88	5.42	6.04	6.80	7.72
50°	8.82	10.23	12.03	14.34	17.55	22.17	28.98	40.84	65.09	135.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.34	1.35	1.36	1.37	1.39	1.40	1.41	1.41	1.42	1.43
20°	1.44	1.45	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59
30°	1.62	1.70	1.79	1.89	2.00	2.12	2.25	2.40	2.56	2.75
40°	2.96	3.19	3.46	3.76	4.11	4.52	5.02	5.59	6.29	7.13
50°	8.15	9.44	11.10	13.23	16.19	20.43	26.69	37.61	59.90	124.39
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.28	1.29	1.30	1.31	1.32	1.34	1.34	1.35	1.35	1.36
20°	1.37	1.38	1.39	1.40	1.41	1.43	1.44	1.46	1.48	1.50
30°	1.52	1.59	1.67	1.76	1.87	1.97	2.10	2.23	2.38	2.55
40°	2.74	2.95	3.20	3.47	3.79	4.16	4.61	5.14	5.78	6.55
50°	7.47	8.66	10.18	12.12	14.82	18.69	24.41	34.37	54.72	113.55
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.22	1.23	1.24	1.25	1.26	1.27	1.27	1.28	1.28	1.29
20°	1.30	1.30	1.31	1.32	1.33	1.34	1.35	1.37	1.38	1.40
30°	1.42	1.49	1.56	1.64	1.73	1.83	1.94	2.06	2.20	2.35
40°	2.52	2.71	2.93	3.18	3.47	3.80	4.21	4.68	5.26	5.97
50°	6.80	7.88	9.25	11.01	13.45	16.96	22.13	31.13	49.53	102.72
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.19	1.20	1.21	1.22	1.23	1.24	1.24	1.24	1.25	1.25
20°	1.26	1.26	1.27	1.28	1.29	1.30	1.31	1.32	1.34	1.35
30°	1.37	1.43	1.50	1.58	1.67	1.76	1.86	1.98	2.11	2.25
40°	2.41	2.59	2.80	3.04	3.30	3.62	4.01	4.46	5.01	5.67
50°	6.47	7.49	8.79	10.45	12.77	16.09	20.98	29.52	46.94	97.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 4.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.16	1.17	1.18	1.18	1.20	1.21	1.21	1.21	1.21	1.22
20°	1.22	1.23	1.23	1.24	1.25	1.26	1.27	1.28	1.29	1.30
30°	1.32	1.38	1.44	1.52	1.60	1.69	1.79	1.90	2.02	2.15
40°	2.31	2.47	2.67	2.89	3.14	3.44	3.81	4.23	4.75	5.38
50°	6.13	7.10	8.33	9.90	12.08	15.22	19.84	27.90	44.34	91.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.10	1.10	1.11	1.12	1.13	1.14	1.14	1.14	1.14	1.15
20°	1.15	1.15	1.16	1.16	1.17	1.17	1.18	1.19	1.20	1.21
30°	1.22	1.27	1.33	1.40	1.47	1.54	1.63	1.73	1.83	1.95
40°	2.09	2.24	2.41	2.60	2.82	3.08	3.41	3.78	4.24	4.80
50°	5.46	6.31	7.40	8.78	10.72	13.48	17.56	24.66	39.15	81.05
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.03	1.04	1.05	1.06	1.07	1.08	1.08	1.08	1.07	1.07
20°	1.07	1.08	1.08	1.08	1.08	1.09	1.09	1.10	1.10	1.11
30°	1.12	1.16	1.22	1.27	1.33	1.40	1.48	1.56	1.65	1.75
40°	1.87	2.00	2.14	2.31	2.50	2.72	3.00	3.33	3.73	4.21
50°	4.79	5.53	6.47	7.67	9.35	11.74	15.28	21.42	33.97	70.21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.00	1.01	1.02	1.03	1.04	1.05	1.04	1.04	1.04	1.04
20°	1.04	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.06	1.06
30°	1.07	1.11	1.16	1.21	1.27	1.33	1.40	1.48	1.56	1.66
40°	1.76	1.88	2.01	2.17	2.34	2.54	2.80	3.11	3.48	3.92
50°	4.46	5.14	6.01	7.12	8.67	10.88	14.13	19.80	31.37	64.79
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.94	0.95	0.96	0.96	0.97	0.98	0.98	0.97	0.97	0.97
20°	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
30°	0.97	1.00	1.04	1.09	1.14	1.19	1.24	1.31	1.38	1.46
40°	1.54	1.64	1.75	1.88	2.02	2.18	2.40	2.66	2.97	3.34
50°	3.79	4.36	5.08	6.01	7.30	9.14	11.85	16.57	26.18	53.96
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 5.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.42	1.43	1.44	1.46	1.47	1.48	1.49	1.50	1.51	1.52
20°	1.54	1.55	1.57	1.58	1.60	1.62	1.64	1.66	1.69	1.71
30°	1.74	1.83	1.93	2.04	2.16	2.29	2.44	2.60	2.78	2.99
40°	3.22	3.48	3.77	4.11	4.50	4.95	5.50	6.12	6.90	7.83
50°	8.94	10.37	12.20	14.54	17.81	22.49	29.39	41.43	66.03	137.18
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.41	1.42	1.43	1.44	1.45	1.47	1.47	1.48	1.49	1.50
20°	1.51	1.53	1.54	1.55	1.57	1.59	1.61	1.63	1.65	1.67
30°	1.70	1.79	1.88	1.99	2.10	2.23	2.37	2.53	2.70	2.90
40°	3.12	3.36	3.65	3.97	4.34	4.77	5.29	5.90	6.64	7.53
50°	8.60	9.97	11.72	13.96	17.09	21.57	28.19	39.71	63.26	131.37
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.39	1.40	1.41	1.42	1.44	1.45	1.46	1.46	1.47	1.48
20°	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.59	1.62	1.64
30°	1.66	1.74	1.83	1.93	2.05	2.17	2.30	2.45	2.62	2.80
40°	3.02	3.25	3.52	3.83	4.18	4.59	5.09	5.67	6.38	7.23
50°	8.25	9.57	11.24	13.39	16.37	20.66	26.98	37.99	60.50	125.56
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.38	1.39	1.40	1.41	1.42	1.44	1.44	1.45	1.45	1.46
20°	1.47	1.48	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.60
30°	1.62	1.70	1.79	1.88	1.99	2.10	2.23	2.38	2.53	2.71
40°	2.91	3.13	3.39	3.69	4.02	4.41	4.89	5.44	6.12	6.93
50°	7.91	9.16	10.76	12.81	15.66	19.74	25.77	36.28	57.73	119.75
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.37	1.38	1.39	1.40	1.41	1.43	1.43	1.44	1.44	1.45
20°	1.46	1.47	1.48	1.49	1.50	1.51	1.53	1.54	1.56	1.58
30°	1.60	1.68	1.76	1.86	1.96	2.07	2.20	2.34	2.49	2.67
40°	2.86	3.08	3.33	3.62	3.94	4.32	4.79	5.33	5.99	6.78
50°	7.74	8.96	10.52	12.52	15.30	19.29	25.17	35.42	56.34	116.85
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 5.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.36	1.37	1.38	1.39	1.41	1.42	1.42	1.43	1.43	1.44
20°	1.45	1.45	1.46	1.47	1.49	1.50	1.51	1.53	1.54	1.56
30°	1.58	1.66	1.74	1.83	1.93	2.04	2.16	2.30	2.45	2.62
40°	2.81	3.02	3.27	3.55	3.86	4.23	4.69	5.21	5.86	6.63
50°	7.57	8.76	10.28	12.23	14.94	18.83	24.57	34.56	54.96	113.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.35	1.36	1.37	1.38	1.39	1.40	1.40	1.41	1.41	1.42
20°	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.51	1.52
30°	1.54	1.61	1.69	1.78	1.87	1.98	2.09	2.22	2.37	2.53
40°	2.71	2.91	3.14	3.40	3.70	4.05	4.48	4.98	5.60	6.34
50°	7.22	8.35	9.80	11.65	14.23	17.91	23.36	32.84	52.19	108.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.33	1.34	1.35	1.36	1.37	1.39	1.39	1.39	1.39	1.40
20°	1.40	1.41	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.49
30°	1.50	1.57	1.64	1.73	1.82	1.91	2.03	2.15	2.28	2.43
40°	2.61	2.79	3.01	3.26	3.54	3.87	4.28	4.76	5.34	6.04
50°	6.88	7.95	9.32	11.07	13.51	17.00	22.15	31.12	49.42	102.33
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.32	1.33	1.34	1.35	1.37	1.38	1.38	1.38	1.38	1.39
20°	1.39	1.39	1.40	1.41	1.41	1.42	1.43	1.44	1.45	1.47
30°	1.48	1.55	1.62	1.70	1.79	1.88	1.99	2.11	2.24	2.39
40°	2.56	2.74	2.95	3.19	3.46	3.78	4.18	4.64	5.21	5.89
50°	6.70	7.75	9.08	10.78	13.15	16.54	21.55	30.26	48.04	99.42
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.31	1.32	1.33	1.34	1.35	1.36	1.36	1.36	1.36	1.36
20°	1.37	1.37	1.37	1.38	1.38	1.39	1.40	1.41	1.42	1.43
30°	1.44	1.50	1.57	1.65	1.73	1.82	1.92	2.04	2.16	2.30
40°	2.45	2.62	2.82	3.05	3.30	3.60	3.98	4.41	4.95	5.59
50°	6.36	7.34	8.60	10.20	12.44	15.63	20.34	28.54	45.27	93.61
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 6.1

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.12	1.13	1.14	1.15	1.16	1.17	1.17	1.18	1.19	1.20
20°	1.20	1.21	1.23	1.24	1.25	1.26	1.28	1.29	1.31	1.33
30°	1.35	1.42	1.49	1.58	1.67	1.77	1.88	2.00	2.14	2.30
40°	2.47	2.67	2.89	3.15	3.44	3.78	4.20	4.67	5.26	5.97
50°	6.82	7.91	9.31	11.09	13.57	17.14	22.40	31.57	50.31	104.50
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.06	1.07	1.08	1.08	1.09	1.11	1.11	1.11	1.12	1.12
20°	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.20	1.22	1.23
30°	1.25	1.31	1.38	1.45	1.54	1.62	1.73	1.84	1.96	2.10
40°	2.25	2.43	2.63	2.86	3.11	3.42	3.79	4.22	4.75	5.39
50°	6.15	7.13	8.38	9.98	12.21	15.40	20.12	28.34	45.12	93.67
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.05	1.05
20°	1.06	1.06	1.07	1.08	1.08	1.09	1.10	1.11	1.12	1.14
30°	1.15	1.21	1.26	1.33	1.40	1.48	1.57	1.67	1.78	1.90
40°	2.04	2.19	2.37	2.57	2.79	3.06	3.39	3.77	4.24	4.80
50°	5.48	6.35	7.45	8.87	10.84	13.66	17.83	25.10	39.93	82.83
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.94	0.94	0.95	0.96	0.97	0.98	0.98	0.98	0.98	0.98
20°	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.03	1.04
30°	1.05	1.10	1.15	1.21	1.27	1.34	1.42	1.50	1.59	1.70
40°	1.82	1.95	2.10	2.28	2.47	2.70	2.99	3.32	3.73	4.22
50°	4.81	5.56	6.53	7.76	9.47	11.93	15.55	21.86	34.75	72.00
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.91	0.91	0.92	0.93	0.94	0.94	0.94	0.94	0.94	0.95
20°	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.98	0.98	0.99
30°	1.00	1.04	1.09	1.15	1.20	1.27	1.34	1.42	1.50	1.60
40°	1.71	1.83	1.97	2.13	2.31	2.52	2.79	3.10	3.47	3.93
50°	4.47	5.17	6.06	7.20	8.79	11.06	14.41	20.24	32.15	66.58
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 3 Sheet 6.2

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07 (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.87	0.88	0.89	0.90	0.90	0.91	0.91	0.91	0.91	0.91
20°	0.91	0.91	0.91	0.92	0.92	0.92	0.93	0.93	0.94	0.94
30°	0.95	0.99	1.04	1.08	1.14	1.20	1.26	1.33	1.41	1.50
40°	1.60	1.71	1.84	1.99	2.15	2.34	2.59	2.87	3.22	3.64
50°	4.14	4.78	5.60	6.65	8.10	10.19	13.27	18.62	29.56	61.16
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.81	0.82	0.82	0.83	0.84	0.85	0.84	0.84	0.84	0.84
20°	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.85
30°	0.85	0.88	0.92	0.96	1.01	1.05	1.11	1.17	1.23	1.30
40°	1.38	1.47	1.58	1.69	1.83	1.98	2.18	2.42	2.71	3.05
50°	3.47	4.00	4.67	5.54	6.74	8.45	10.98	15.39	24.37	50.32
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.75	0.76	0.76	0.77	0.78	0.78	0.78	0.77	0.77	0.77
20°	0.76	0.76	0.76	0.76	0.75	0.75	0.75	0.75	0.75	0.75
30°	0.75	0.78	0.81	0.84	0.87	0.91	0.95	1.00	1.05	1.10
40°	1.17	1.24	1.31	1.40	1.50	1.62	1.78	1.97	2.20	2.47
50°	2.80	3.22	3.75	4.43	5.37	6.72	8.70	12.15	19.18	39.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.72	0.72	0.73	0.74	0.74	0.75	0.75	0.74	0.74	0.73
20°	0.73	0.72	0.72	0.72	0.71	0.71	0.71	0.70	0.70	0.70
30°	0.70	0.72	0.75	0.78	0.81	0.84	0.87	0.91	0.96	1.00
40°	1.06	1.12	1.18	1.26	1.34	1.44	1.58	1.74	1.94	2.18
50°	2.46	2.82	3.28	3.87	4.69	5.85	7.56	10.53	16.59	34.07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.66	0.66	0.67	0.67	0.68	0.69	0.68	0.67	0.67	0.66
20°	0.65	0.65	0.64	0.63	0.63	0.62	0.62	0.61	0.61	0.60
30°	0.60	0.62	0.63	0.65	0.67	0.69	0.72	0.75	0.77	0.81
40°	0.84	0.88	0.92	0.97	1.02	1.08	1.18	1.29	1.43	1.59
50°	1.79	2.04	2.36	2.76	3.32	4.11	5.28	7.30	11.40	23.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Blue 230/07, SOLON Black 230/07 (01, 02), SOLON Blue 220/03 (01, 07), SOLON P220/6+/07, SOLON M230/6+/07 (01) are structurally identical.

Annex 4 Sheet 1.1

SOLON P220/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.38	1.39	1.40	1.42	1.43	1.44	1.45	1.46	1.47	1.48
20°	1.49	1.51	1.52	1.54	1.56	1.57	1.59	1.62	1.64	1.66
30°	1.69	1.78	1.87	1.98	2.10	2.22	2.37	2.53	2.70	2.90
40°	3.12	3.37	3.66	3.99	4.36	4.80	5.33	5.94	6.69	7.59
50°	8.67	10.06	11.83	14.10	17.26	21.80	28.50	40.17	64.02	132.99
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.37	1.38	1.39	1.40	1.41	1.43	1.43	1.44	1.45	1.46
20°	1.47	1.48	1.50	1.51	1.53	1.54	1.56	1.58	1.60	1.63
30°	1.65	1.73	1.83	1.93	2.04	2.16	2.30	2.45	2.62	2.81
40°	3.02	3.26	3.53	3.85	4.20	4.62	5.13	5.71	6.43	7.29
50°	8.33	9.65	11.35	13.52	16.55	20.89	27.29	38.45	61.25	127.18
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.35	1.36	1.37	1.38	1.40	1.41	1.42	1.42	1.43	1.44
20°	1.45	1.46	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59
30°	1.61	1.69	1.78	1.88	1.98	2.10	2.23	2.38	2.53	2.72
40°	2.92	3.14	3.41	3.71	4.04	4.44	4.92	5.48	6.17	6.99
50°	7.98	9.25	10.87	12.94	15.83	19.97	26.08	36.73	58.48	121.37
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.34	1.35	1.36	1.37	1.38	1.39	1.40	1.40	1.41	1.42
20°	1.43	1.43	1.44	1.46	1.47	1.48	1.50	1.51	1.53	1.55
30°	1.57	1.65	1.73	1.82	1.93	2.04	2.16	2.30	2.45	2.62
40°	2.82	3.03	3.28	3.56	3.88	4.26	4.72	5.25	5.91	6.69
50°	7.64	8.85	10.39	12.36	15.12	19.06	24.88	35.01	55.71	115.56
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.33	1.34	1.35	1.36	1.37	1.39	1.39	1.39	1.40	1.41
20°	1.41	1.42	1.43	1.44	1.45	1.47	1.48	1.50	1.51	1.53
30°	1.55	1.63	1.71	1.80	1.90	2.00	2.13	2.26	2.41	2.58
40°	2.77	2.97	3.22	3.49	3.80	4.17	4.62	5.14	5.78	6.55
50°	7.47	8.64	10.15	12.07	14.76	18.60	24.27	34.15	54.33	112.66
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 1.2

SOLON P220/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.32	1.33	1.34	1.35	1.37	1.38	1.38	1.39	1.39	1.40
20°	1.40	1.41	1.42	1.43	1.44	1.45	1.46	1.48	1.50	1.51
30°	1.53	1.60	1.68	1.77	1.87	1.97	2.09	2.22	2.37	2.53
40°	2.72	2.92	3.15	3.42	3.72	4.08	4.52	5.03	5.65	6.40
50°	7.29	8.44	9.91	11.79	14.40	18.14	23.67	33.29	52.94	109.76
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.31	1.32	1.33	1.34	1.35	1.36	1.36	1.37	1.37	1.38
20°	1.38	1.39	1.39	1.40	1.41	1.42	1.43	1.45	1.46	1.47
30°	1.49	1.56	1.64	1.72	1.81	1.91	2.02	2.15	2.28	2.44
40°	2.61	2.80	3.03	3.28	3.56	3.90	4.32	4.80	5.39	6.10
50°	6.95	8.04	9.43	11.21	13.68	17.23	22.46	31.57	50.17	103.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.29	1.30	1.31	1.32	1.33	1.35	1.35	1.35	1.35	1.35
20°	1.36	1.36	1.37	1.37	1.38	1.39	1.40	1.41	1.42	1.44
30°	1.45	1.52	1.59	1.67	1.75	1.85	1.95	2.07	2.20	2.35
40°	2.51	2.69	2.90	3.14	3.40	3.72	4.12	4.57	5.13	5.80
50°	6.60	7.63	8.95	10.63	12.97	16.32	21.25	29.85	47.41	98.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.28	1.29	1.30	1.31	1.33	1.34	1.34	1.34	1.34	1.34
20°	1.35	1.35	1.36	1.36	1.37	1.38	1.38	1.39	1.41	1.42
30°	1.43	1.49	1.56	1.64	1.73	1.82	1.92	2.03	2.16	2.30
40°	2.46	2.63	2.84	3.07	3.32	3.63	4.01	4.46	5.00	5.65
50°	6.43	7.43	8.71	10.34	12.61	15.86	20.65	28.99	46.02	95.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.27	1.28	1.29	1.30	1.31	1.32	1.32	1.32	1.32	1.32
20°	1.32	1.33	1.33	1.33	1.34	1.35	1.35	1.36	1.37	1.38
30°	1.39	1.45	1.52	1.59	1.67	1.75	1.85	1.96	2.07	2.21
40°	2.36	2.52	2.71	2.92	3.17	3.45	3.81	4.23	4.74	5.35
50°	6.09	7.03	8.23	9.76	11.89	14.94	19.44	27.27	43.25	89.42
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 2.1

SOLON P220/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.08	1.09	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.15
20°	1.16	1.17	1.18	1.19	1.20	1.22	1.23	1.25	1.26	1.28
30°	1.30	1.37	1.44	1.52	1.61	1.70	1.81	1.93	2.06	2.21
40°	2.38	2.56	2.78	3.02	3.30	3.63	4.03	4.49	5.05	5.73
50°	6.55	7.60	8.93	10.65	13.03	16.45	21.50	30.31	48.29	100.31
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.02	1.03	1.04	1.05	1.05	1.07	1.07	1.07	1.08	1.08
20°	1.09	1.10	1.10	1.11	1.12	1.13	1.14	1.16	1.17	1.18
30°	1.20	1.26	1.32	1.39	1.47	1.56	1.65	1.76	1.88	2.01
40°	2.16	2.32	2.51	2.73	2.98	3.27	3.63	4.04	4.54	5.15
50°	5.88	6.81	8.01	9.53	11.66	14.72	19.22	27.07	43.11	89.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.96	0.97	0.97	0.98	0.99	1.00	1.00	1.00	1.01	1.01
20°	1.02	1.02	1.03	1.03	1.04	1.05	1.06	1.07	1.08	1.09
30°	1.10	1.15	1.21	1.27	1.34	1.41	1.50	1.59	1.69	1.81
40°	1.94	2.08	2.25	2.44	2.66	2.91	3.22	3.59	4.03	4.57
50°	5.21	6.03	7.08	8.42	10.30	12.98	16.94	23.83	37.92	78.64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.90	0.90	0.91	0.92	0.93	0.94	0.94	0.94	0.94	0.94
20°	0.94	0.94	0.95	0.95	0.96	0.96	0.97	0.97	0.98	0.99
30°	1.00	1.05	1.09	1.15	1.21	1.27	1.34	1.42	1.51	1.61
40°	1.72	1.85	1.99	2.15	2.33	2.55	2.82	3.14	3.52	3.98
50°	4.54	5.25	6.16	7.31	8.93	11.24	14.65	20.60	32.73	67.81
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.87	0.87	0.88	0.89	0.90	0.90	0.90	0.90	0.90	0.90
20°	0.90	0.91	0.91	0.91	0.92	0.92	0.92	0.93	0.94	0.94
30°	0.95	0.99	1.04	1.09	1.14	1.20	1.27	1.34	1.42	1.51
40°	1.62	1.73	1.86	2.01	2.17	2.37	2.62	2.91	3.26	3.69
50°	4.20	4.86	5.69	6.76	8.25	10.37	13.51	18.98	30.14	62.39
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 2.2

SOLON P220/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.84	0.84	0.85	0.86	0.86	0.87	0.87	0.87	0.87	0.87
20°	0.87	0.87	0.87	0.87	0.87	0.88	0.88	0.88	0.89	0.89
30°	0.90	0.94	0.98	1.02	1.08	1.13	1.19	1.26	1.33	1.41
40°	1.51	1.61	1.73	1.86	2.01	2.19	2.42	2.68	3.01	3.40
50°	3.87	4.47	5.23	6.20	7.56	9.51	12.37	17.36	27.54	56.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.77	0.78	0.79	0.79	0.80	0.81	0.80	0.80	0.80	0.80
20°	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.80	0.80
30°	0.80	0.83	0.86	0.90	0.94	0.99	1.03	1.09	1.15	1.21
40°	1.29	1.37	1.46	1.57	1.69	1.83	2.02	2.23	2.50	2.82
50°	3.20	3.68	4.30	5.09	6.19	7.77	10.09	14.12	22.36	46.13
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.71	0.72	0.72	0.73	0.74	0.74	0.74	0.73	0.73	0.72
20°	0.72	0.72	0.71	0.71	0.71	0.71	0.70	0.70	0.70	0.70
30°	0.70	0.72	0.75	0.78	0.81	0.84	0.88	0.92	0.97	1.02
40°	1.07	1.13	1.20	1.28	1.37	1.47	1.62	1.78	1.99	2.23
50°	2.53	2.90	3.38	3.98	4.83	6.03	7.80	10.89	17.17	35.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.68	0.69	0.69	0.70	0.70	0.71	0.71	0.70	0.69	0.69
20°	0.68	0.68	0.67	0.67	0.67	0.66	0.66	0.66	0.65	0.65
30°	0.65	0.67	0.69	0.72	0.74	0.77	0.80	0.84	0.87	0.92
40°	0.96	1.01	1.07	1.14	1.21	1.29	1.41	1.56	1.73	1.94
50°	2.19	2.51	2.91	3.43	4.14	5.16	6.66	9.27	14.57	29.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.62	0.62	0.63	0.63	0.64	0.65	0.64	0.63	0.62	0.62
20°	0.61	0.60	0.60	0.59	0.58	0.58	0.57	0.57	0.56	0.56
30°	0.55	0.56	0.58	0.59	0.61	0.63	0.65	0.67	0.69	0.72
40°	0.75	0.77	0.81	0.84	0.88	0.93	1.01	1.11	1.22	1.36
50°	1.52	1.73	1.99	2.32	2.78	3.43	4.38	6.03	9.39	19.04
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 3.1

SOLON P220/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity – Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.71	1.72	1.73	1.75	1.76	1.78	1.79	1.80	1.82	1.83
20°	1.85	1.87	1.89	1.91	1.93	1.95	1.98	2.01	2.04	2.07
30°	2.11	2.22	2.34	2.47	2.62	2.78	2.96	3.17	3.39	3.64
40°	3.92	4.24	4.60	5.02	5.49	6.05	6.72	7.49	8.43	9.57
50°	10.94	12.69	14.93	17.79	21.79	27.51	35.97	50.71	80.82	167.90
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.69	1.70	1.72	1.73	1.75	1.76	1.77	1.78	1.80	1.81
20°	1.82	1.84	1.86	1.88	1.90	1.92	1.95	1.98	2.00	2.03
30°	2.07	2.18	2.29	2.42	2.57	2.72	2.90	3.09	3.30	3.55
40°	3.82	4.12	4.48	4.88	5.33	5.87	6.51	7.26	8.17	9.27
50°	10.59	12.28	14.45	17.21	21.07	26.60	34.76	48.99	78.05	162.09
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.68	1.69	1.70	1.71	1.73	1.75	1.75	1.76	1.78	1.79
20°	1.80	1.82	1.83	1.85	1.87	1.89	1.92	1.94	1.97	2.00
30°	2.03	2.13	2.24	2.37	2.51	2.66	2.83	3.01	3.22	3.45
40°	3.72	4.01	4.35	4.74	5.17	5.69	6.31	7.03	7.91	8.97
50°	10.25	11.88	13.97	16.63	20.35	25.68	33.56	47.27	75.28	156.28
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.66	1.67	1.68	1.70	1.71	1.73	1.74	1.75	1.76	1.77
20°	1.78	1.79	1.81	1.83	1.84	1.86	1.88	1.91	1.93	1.96
30°	1.99	2.09	2.20	2.32	2.45	2.59	2.76	2.94	3.14	3.36
40°	3.62	3.90	4.22	4.60	5.01	5.51	6.11	6.80	7.65	8.68
50°	9.90	11.48	13.49	16.06	19.64	24.77	32.35	45.55	72.51	150.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.65	1.66	1.68	1.69	1.71	1.72	1.73	1.74	1.75	1.76
20°	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.89	1.91	1.94
30°	1.97	2.07	2.17	2.29	2.42	2.56	2.72	2.90	3.09	3.32
40°	3.57	3.84	4.16	4.52	4.93	5.42	6.01	6.69	7.52	8.53
50°	9.73	11.27	13.25	15.77	19.28	24.31	31.74	44.69	71.13	147.57
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 3.2

SOLON P220/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity – Optimum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.64	1.66	1.67	1.68	1.70	1.71	1.72	1.73	1.74	1.75
20°	1.76	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.90	1.92
30°	1.95	2.04	2.15	2.26	2.39	2.53	2.69	2.86	3.05	3.27
40°	3.51	3.78	4.10	4.45	4.85	5.33	5.91	6.58	7.39	8.38
50°	9.56	11.07	13.01	15.48	18.92	23.86	31.14	43.83	69.74	144.67
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.63	1.64	1.65	1.67	1.68	1.70	1.70	1.71	1.72	1.72
20°	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84	1.86	1.88
30°	1.91	2.00	2.10	2.21	2.34	2.47	2.62	2.79	2.97	3.18
40°	3.41	3.67	3.97	4.31	4.70	5.15	5.71	6.35	7.13	8.08
50°	9.21	10.67	12.53	14.90	18.21	22.94	29.93	42.11	66.97	138.86
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.61	1.63	1.64	1.65	1.67	1.68	1.69	1.69	1.70	1.70
20°	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84
30°	1.87	1.96	2.05	2.16	2.28	2.41	2.55	2.71	2.89	3.09
40°	3.31	3.56	3.84	4.17	4.54	4.97	5.50	6.12	6.87	7.78
50°	8.87	10.26	12.05	14.32	17.49	22.03	28.73	40.39	64.20	133.05
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.61	1.62	1.63	1.64	1.66	1.67	1.68	1.68	1.69	1.69
20°	1.70	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.81	1.83
30°	1.85	1.93	2.03	2.13	2.25	2.38	2.52	2.67	2.84	3.04
40°	3.26	3.50	3.78	4.10	4.46	4.88	5.40	6.01	6.74	7.63
50°	8.70	10.06	11.81	14.03	17.13	21.57	28.12	39.53	62.82	130.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.59	1.60	1.61	1.63	1.64	1.66	1.66	1.66	1.67	1.67
20°	1.68	1.68	1.69	1.70	1.71	1.73	1.74	1.75	1.77	1.79
30°	1.81	1.89	1.98	2.08	2.19	2.31	2.45	2.60	2.76	2.95
40°	3.16	3.39	3.65	3.96	4.30	4.70	5.20	5.78	6.48	7.34
50°	8.35	9.66	11.32	13.45	16.41	20.66	26.91	37.81	60.05	124.34
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 4.1

SOLON P220/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity – Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.50
20°	1.52	1.53	1.54	1.56	1.58	1.60	1.62	1.64	1.66	1.69
30°	1.72	1.81	1.90	2.01	2.13	2.26	2.41	2.57	2.74	2.95
40°	3.18	3.43	3.72	4.06	4.43	4.88	5.42	6.04	6.80	7.72
50°	8.82	10.23	12.03	14.34	17.55	22.17	28.98	40.84	65.09	135.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.34	1.35	1.36	1.37	1.39	1.40	1.41	1.41	1.42	1.43
20°	1.44	1.45	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59
30°	1.62	1.70	1.79	1.89	2.00	2.12	2.25	2.40	2.56	2.75
40°	2.96	3.19	3.46	3.76	4.11	4.52	5.02	5.59	6.29	7.13
50°	8.15	9.44	11.10	13.23	16.19	20.43	26.69	37.61	59.90	124.39
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.28	1.29	1.30	1.31	1.32	1.34	1.34	1.35	1.35	1.36
20°	1.37	1.38	1.39	1.40	1.41	1.43	1.44	1.46	1.48	1.50
30°	1.52	1.59	1.67	1.76	1.87	1.97	2.10	2.23	2.38	2.55
40°	2.74	2.95	3.20	3.47	3.79	4.16	4.61	5.14	5.78	6.55
50°	7.47	8.66	10.18	12.12	14.82	18.69	24.41	34.37	54.72	113.55
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.22	1.23	1.24	1.25	1.26	1.27	1.27	1.28	1.28	1.29
20°	1.30	1.30	1.31	1.32	1.33	1.34	1.35	1.37	1.38	1.40
30°	1.42	1.49	1.56	1.64	1.73	1.83	1.94	2.06	2.20	2.35
40°	2.52	2.71	2.93	3.18	3.47	3.80	4.21	4.68	5.26	5.97
50°	6.80	7.88	9.25	11.01	13.45	16.96	22.13	31.13	49.53	102.72
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.19	1.20	1.21	1.22	1.23	1.24	1.24	1.24	1.25	1.25
20°	1.26	1.26	1.27	1.28	1.29	1.30	1.31	1.32	1.34	1.35
30°	1.37	1.43	1.50	1.58	1.67	1.76	1.86	1.98	2.11	2.25
40°	2.41	2.59	2.80	3.04	3.30	3.62	4.01	4.46	5.01	5.67
50°	6.47	7.49	8.79	10.45	12.77	16.09	20.98	29.52	46.94	97.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 4.2

SOLON P220/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity – Optimum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.16	1.17	1.18	1.18	1.20	1.21	1.21	1.21	1.21	1.22
20°	1.22	1.23	1.23	1.24	1.25	1.26	1.27	1.28	1.29	1.30
30°	1.32	1.38	1.44	1.52	1.60	1.69	1.79	1.90	2.02	2.15
40°	2.31	2.47	2.67	2.89	3.14	3.44	3.81	4.23	4.75	5.38
50°	6.13	7.10	8.33	9.90	12.08	15.22	19.84	27.90	44.34	91.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.10	1.10	1.11	1.12	1.13	1.14	1.14	1.14	1.14	1.15
20°	1.15	1.15	1.16	1.16	1.17	1.17	1.18	1.19	1.20	1.21
30°	1.22	1.27	1.33	1.40	1.47	1.54	1.63	1.73	1.83	1.95
40°	2.09	2.24	2.41	2.60	2.82	3.08	3.41	3.78	4.24	4.80
50°	5.46	6.31	7.40	8.78	10.72	13.48	17.56	24.66	39.15	81.05
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.03	1.04	1.05	1.06	1.07	1.08	1.08	1.08	1.07	1.07
20°	1.07	1.08	1.08	1.08	1.08	1.09	1.09	1.10	1.10	1.11
30°	1.12	1.16	1.22	1.27	1.33	1.40	1.48	1.56	1.65	1.75
40°	1.87	2.00	2.14	2.31	2.50	2.72	3.00	3.33	3.73	4.21
50°	4.79	5.53	6.47	7.67	9.35	11.74	15.28	21.42	33.97	70.21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.00	1.01	1.02	1.03	1.04	1.05	1.04	1.04	1.04	1.04
20°	1.04	1.04	1.04	1.04	1.04	1.04	1.05	1.05	1.06	1.06
30°	1.07	1.11	1.16	1.21	1.27	1.33	1.40	1.48	1.56	1.66
40°	1.76	1.88	2.01	2.17	2.34	2.54	2.80	3.11	3.48	3.92
50°	4.46	5.14	6.01	7.12	8.67	10.88	14.13	19.80	31.37	64.79
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.94	0.95	0.96	0.96	0.97	0.98	0.98	0.97	0.97	0.97
20°	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
30°	0.97	1.00	1.04	1.09	1.14	1.19	1.24	1.31	1.38	1.46
40°	1.54	1.64	1.75	1.88	2.02	2.18	2.40	2.66	2.97	3.34
50°	3.79	4.36	5.08	6.01	7.30	9.14	11.85	16.57	26.18	53.96
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 5.1

SOLON P220/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.38	1.39	1.40	1.42	1.43	1.44	1.45	1.46	1.47	1.48
20°	1.49	1.51	1.52	1.54	1.56	1.57	1.59	1.62	1.64	1.66
30°	1.69	1.78	1.87	1.98	2.10	2.22	2.37	2.53	2.70	2.90
40°	3.12	3.37	3.66	3.99	4.36	4.80	5.33	5.94	6.69	7.59
50°	8.67	10.06	11.83	14.10	17.26	21.80	28.50	40.17	64.02	132.99
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.37	1.38	1.39	1.40	1.41	1.43	1.43	1.44	1.45	1.46
20°	1.47	1.48	1.50	1.51	1.53	1.54	1.56	1.58	1.60	1.63
30°	1.65	1.73	1.83	1.93	2.04	2.16	2.30	2.45	2.62	2.81
40°	3.02	3.26	3.53	3.85	4.20	4.62	5.13	5.71	6.43	7.29
50°	8.33	9.65	11.35	13.52	16.55	20.89	27.29	38.45	61.25	127.18
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.35	1.36	1.37	1.38	1.40	1.41	1.42	1.42	1.43	1.44
20°	1.45	1.46	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59
30°	1.61	1.69	1.78	1.88	1.98	2.10	2.23	2.38	2.53	2.72
40°	2.92	3.14	3.41	3.71	4.04	4.44	4.92	5.48	6.17	6.99
50°	7.98	9.25	10.87	12.94	15.83	19.97	26.08	36.73	58.48	121.37
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.34	1.35	1.36	1.37	1.38	1.39	1.40	1.40	1.41	1.42
20°	1.43	1.43	1.44	1.46	1.47	1.48	1.50	1.51	1.53	1.55
30°	1.57	1.65	1.73	1.82	1.93	2.04	2.16	2.30	2.45	2.62
40°	2.82	3.03	3.28	3.56	3.88	4.26	4.72	5.25	5.91	6.69
50°	7.64	8.85	10.39	12.36	15.12	19.06	24.88	35.01	55.71	115.56
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.33	1.34	1.35	1.36	1.37	1.39	1.39	1.39	1.40	1.41
20°	1.41	1.42	1.43	1.44	1.45	1.47	1.48	1.50	1.51	1.53
30°	1.55	1.63	1.71	1.80	1.90	2.00	2.13	2.26	2.41	2.58
40°	2.77	2.97	3.22	3.49	3.80	4.17	4.62	5.14	5.78	6.55
50°	7.47	8.64	10.15	12.07	14.76	18.60	24.27	34.15	54.33	112.66
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 5.2

SOLON P220/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.32	1.33	1.34	1.35	1.37	1.38	1.38	1.39	1.39	1.40
20°	1.40	1.41	1.42	1.43	1.44	1.45	1.46	1.48	1.50	1.51
30°	1.53	1.60	1.68	1.77	1.87	1.97	2.09	2.22	2.37	2.53
40°	2.72	2.92	3.15	3.42	3.72	4.08	4.52	5.03	5.65	6.40
50°	7.29	8.44	9.91	11.79	14.40	18.14	23.67	33.29	52.94	109.76
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.31	1.32	1.33	1.34	1.35	1.36	1.36	1.37	1.37	1.38
20°	1.38	1.39	1.39	1.40	1.41	1.42	1.43	1.45	1.46	1.47
30°	1.49	1.56	1.64	1.72	1.81	1.91	2.02	2.15	2.28	2.44
40°	2.61	2.80	3.03	3.28	3.56	3.90	4.32	4.80	5.39	6.10
50°	6.95	8.04	9.43	11.21	13.68	17.23	22.46	31.57	50.17	103.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.29	1.30	1.31	1.32	1.33	1.35	1.35	1.35	1.35	1.35
20°	1.36	1.36	1.37	1.37	1.38	1.39	1.40	1.41	1.42	1.44
30°	1.45	1.52	1.59	1.67	1.75	1.85	1.95	2.07	2.20	2.35
40°	2.51	2.69	2.90	3.14	3.40	3.72	4.12	4.57	5.13	5.80
50°	6.60	7.63	8.95	10.63	12.97	16.32	21.25	29.85	47.41	98.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.28	1.29	1.30	1.31	1.33	1.34	1.34	1.34	1.34	1.34
20°	1.35	1.35	1.36	1.36	1.37	1.38	1.38	1.39	1.41	1.42
30°	1.43	1.49	1.56	1.64	1.73	1.82	1.92	2.03	2.16	2.30
40°	2.46	2.63	2.84	3.07	3.32	3.63	4.01	4.46	5.00	5.65
50°	6.43	7.43	8.71	10.34	12.61	15.86	20.65	28.99	46.02	95.23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.27	1.28	1.29	1.30	1.31	1.32	1.32	1.32	1.32	1.32
20°	1.32	1.33	1.33	1.33	1.34	1.35	1.35	1.36	1.37	1.38
30°	1.39	1.45	1.52	1.59	1.67	1.75	1.85	1.96	2.07	2.21
40°	2.36	2.52	2.71	2.92	3.17	3.45	3.81	4.23	4.74	5.35
50°	6.09	7.03	8.23	9.76	11.89	14.94	19.44	27.27	43.25	89.42
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 6.1

SOLON P220/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.08	1.09	1.10	1.11	1.12	1.13	1.13	1.14	1.15	1.15
20°	1.16	1.17	1.18	1.19	1.20	1.22	1.23	1.25	1.26	1.28
30°	1.30	1.37	1.44	1.52	1.61	1.70	1.81	1.93	2.06	2.21
40°	2.38	2.56	2.78	3.02	3.30	3.63	4.03	4.49	5.05	5.73
50°	6.55	7.60	8.93	10.65	13.03	16.45	21.50	30.31	48.29	100.31
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.02	1.03	1.04	1.05	1.05	1.07	1.07	1.07	1.08	1.08
20°	1.09	1.10	1.10	1.11	1.12	1.13	1.14	1.16	1.17	1.18
30°	1.20	1.26	1.32	1.39	1.47	1.56	1.65	1.76	1.88	2.01
40°	2.16	2.32	2.51	2.73	2.98	3.27	3.63	4.04	4.54	5.15
50°	5.88	6.81	8.01	9.53	11.66	14.72	19.22	27.07	43.11	89.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.96	0.97	0.97	0.98	0.99	1.00	1.00	1.00	1.01	1.01
20°	1.02	1.02	1.03	1.03	1.04	1.05	1.06	1.07	1.08	1.09
30°	1.10	1.15	1.21	1.27	1.34	1.41	1.50	1.59	1.69	1.81
40°	1.94	2.08	2.25	2.44	2.66	2.91	3.22	3.59	4.03	4.57
50°	5.21	6.03	7.08	8.42	10.30	12.98	16.94	23.83	37.92	78.64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.90	0.90	0.91	0.92	0.93	0.94	0.94	0.94	0.94	0.94
20°	0.94	0.94	0.95	0.95	0.96	0.96	0.97	0.97	0.98	0.99
30°	1.00	1.05	1.09	1.15	1.21	1.27	1.34	1.42	1.51	1.61
40°	1.72	1.85	1.99	2.15	2.33	2.55	2.82	3.14	3.52	3.98
50°	4.54	5.25	6.16	7.31	8.93	11.24	14.65	20.60	32.73	67.81
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.87	0.87	0.88	0.89	0.90	0.90	0.90	0.90	0.90	0.90
20°	0.90	0.91	0.91	0.91	0.92	0.92	0.92	0.93	0.94	0.94
30°	0.95	0.99	1.04	1.09	1.14	1.20	1.27	1.34	1.42	1.51
40°	1.62	1.73	1.86	2.01	2.17	2.37	2.62	2.91	3.26	3.69
50°	4.20	4.86	5.69	6.76	8.25	10.37	13.51	18.98	30.14	62.39
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 4 Sheet 6.2

SOLON P220/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.84	0.84	0.85	0.86	0.86	0.87	0.87	0.87	0.87	0.87
20°	0.87	0.87	0.87	0.87	0.87	0.88	0.88	0.88	0.89	0.89
30°	0.90	0.94	0.98	1.02	1.08	1.13	1.19	1.26	1.33	1.41
40°	1.51	1.61	1.73	1.86	2.01	2.19	2.42	2.68	3.01	3.40
50°	3.87	4.47	5.23	6.20	7.56	9.51	12.37	17.36	27.54	56.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.77	0.78	0.79	0.79	0.80	0.81	0.80	0.80	0.80	0.80
20°	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.80	0.80
30°	0.80	0.83	0.86	0.90	0.94	0.99	1.03	1.09	1.15	1.21
40°	1.29	1.37	1.46	1.57	1.69	1.83	2.02	2.23	2.50	2.82
50°	3.20	3.68	4.30	5.09	6.19	7.77	10.09	14.12	22.36	46.13
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.71	0.72	0.72	0.73	0.74	0.74	0.74	0.73	0.73	0.72
20°	0.72	0.72	0.71	0.71	0.71	0.71	0.70	0.70	0.70	0.70
30°	0.70	0.72	0.75	0.78	0.81	0.84	0.88	0.92	0.97	1.02
40°	1.07	1.13	1.20	1.28	1.37	1.47	1.62	1.78	1.99	2.23
50°	2.53	2.90	3.38	3.98	4.83	6.03	7.80	10.89	17.17	35.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.68	0.69	0.69	0.70	0.70	0.71	0.71	0.70	0.69	0.69
20°	0.68	0.68	0.67	0.67	0.67	0.66	0.66	0.66	0.65	0.65
30°	0.65	0.67	0.69	0.72	0.74	0.77	0.80	0.84	0.87	0.92
40°	0.96	1.01	1.07	1.14	1.21	1.29	1.41	1.56	1.73	1.94
50°	2.19	2.51	2.91	3.43	4.14	5.16	6.66	9.27	14.57	29.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.62	0.62	0.63	0.63	0.64	0.65	0.64	0.63	0.62	0.62
20°	0.61	0.60	0.60	0.59	0.58	0.58	0.57	0.57	0.56	0.56
30°	0.55	0.56	0.58	0.59	0.61	0.63	0.65	0.67	0.69	0.72
40°	0.75	0.77	0.81	0.84	0.88	0.93	1.01	1.11	1.22	1.36
50°	1.52	1.73	1.99	2.32	2.78	3.43	4.38	6.03	9.39	19.04
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON M230/6+ is structurally identical with SOLON P220/6+.

Annex 5 Sheet 1.1

SOLON P180/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.84
20°	1.86	1.88	1.90	1.92	1.94	1.97	2.00	2.02	2.06	2.09
30°	2.12	2.24	2.36	2.49	2.64	2.80	2.99	3.19	3.41	3.67
40°	3.96	4.27	4.64	5.06	5.54	6.10	6.77	7.55	8.50	9.65
50°	11.03	12.79	15.05	17.94	21.97	27.74	36.27	51.13	81.49	169.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.70	1.72	1.73	1.74	1.76	1.78	1.79	1.80	1.81	1.82
20°	1.84	1.86	1.87	1.89	1.92	1.94	1.96	1.99	2.02	2.05
30°	2.08	2.19	2.31	2.44	2.59	2.74	2.92	3.12	3.33	3.58
40°	3.85	4.16	4.51	4.92	5.38	5.92	6.57	7.32	8.24	9.35
50°	10.68	12.39	14.57	17.36	21.25	26.83	35.06	49.41	78.72	163.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.69	1.70	1.71	1.73	1.74	1.76	1.77	1.78	1.79	1.80
20°	1.82	1.83	1.85	1.87	1.89	1.91	1.93	1.96	1.98	2.01
30°	2.04	2.15	2.26	2.39	2.53	2.68	2.85	3.04	3.25	3.48
40°	3.75	4.04	4.39	4.78	5.22	5.74	6.37	7.09	7.98	9.05
50°	10.34	11.99	14.09	16.78	20.54	25.91	33.85	47.69	75.95	157.68
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.67	1.68	1.70	1.71	1.73	1.74	1.75	1.76	1.77	1.78
20°	1.79	1.81	1.82	1.84	1.86	1.88	1.90	1.92	1.95	1.97
30°	2.00	2.11	2.21	2.34	2.47	2.62	2.78	2.96	3.16	3.39
40°	3.65	3.93	4.26	4.64	5.06	5.56	6.17	6.87	7.72	8.76
50°	9.99	11.58	13.61	16.20	19.82	25.00	32.65	45.97	73.18	151.87
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.67	1.68	1.69	1.70	1.72	1.74	1.74	1.75	1.76	1.77
20°	1.78	1.80	1.81	1.83	1.84	1.86	1.88	1.91	1.93	1.96
30°	1.98	2.08	2.19	2.31	2.44	2.59	2.75	2.93	3.12	3.35
40°	3.60	3.87	4.20	4.57	4.98	5.47	6.06	6.75	7.59	8.61
50°	9.82	11.38	13.37	15.91	19.46	24.54	32.04	45.11	71.80	148.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 1.2

SOLON P180/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.66	1.67	1.68	1.70	1.71	1.73	1.73	1.74	1.75	1.76
20°	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.89	1.91	1.94
30°	1.96	2.06	2.17	2.28	2.41	2.55	2.71	2.89	3.08	3.30
40°	3.55	3.82	4.13	4.49	4.90	5.38	5.96	6.64	7.46	8.46
50°	9.65	11.18	13.13	15.62	19.10	24.08	31.44	44.25	70.41	146.06
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.64	1.65	1.67	1.68	1.69	1.71	1.72	1.72	1.73	1.74
20°	1.75	1.76	1.77	1.79	1.80	1.82	1.84	1.85	1.88	1.90
30°	1.92	2.02	2.12	2.23	2.36	2.49	2.64	2.81	3.00	3.21
40°	3.44	3.70	4.01	4.35	4.74	5.20	5.76	6.41	7.20	8.16
50°	9.31	10.77	12.65	15.05	18.39	23.17	30.23	42.53	67.64	140.25
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.63	1.64	1.65	1.66	1.68	1.70	1.70	1.70	1.71	1.72
20°	1.73	1.74	1.75	1.76	1.77	1.79	1.80	1.82	1.84	1.86
30°	1.88	1.97	2.07	2.18	2.30	2.43	2.58	2.74	2.91	3.12
40°	3.34	3.59	3.88	4.21	4.58	5.02	5.56	6.18	6.94	7.86
50°	8.96	10.37	12.17	14.47	17.67	22.26	29.02	40.81	64.88	134.45
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.62	1.63	1.64	1.66	1.67	1.69	1.69	1.69	1.70	1.71
20°	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84
30°	1.86	1.95	2.05	2.15	2.27	2.40	2.54	2.70	2.87	3.07
40°	3.29	3.53	3.82	4.14	4.50	4.93	5.46	6.07	6.81	7.71
50°	8.79	10.17	11.93	14.18	17.31	21.80	28.42	39.95	63.49	131.54
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.60	1.61	1.63	1.64	1.65	1.67	1.67	1.68	1.68	1.69
20°	1.69	1.70	1.71	1.72	1.73	1.74	1.75	1.77	1.79	1.80
30°	1.82	1.91	2.00	2.10	2.21	2.33	2.47	2.62	2.79	2.98
40°	3.19	3.42	3.69	4.00	4.34	4.75	5.26	5.84	6.55	7.41
50°	8.44	9.76	11.45	13.60	16.60	20.89	27.21	38.23	60.72	125.73
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 2.1

SOLON P180/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.42	1.43	1.44	1.45	1.46	1.48	1.49	1.50	1.51	1.52
20°	1.53	1.54	1.56	1.58	1.59	1.61	1.63	1.66	1.68	1.71
30°	1.73	1.82	1.92	2.03	2.15	2.28	2.43	2.59	2.77	2.98
40°	3.21	3.46	3.76	4.10	4.48	4.93	5.47	6.10	6.87	7.80
50°	8.91	10.33	12.15	14.48	17.74	22.39	29.28	41.27	65.76	136.62
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.36	1.37	1.38	1.39	1.40	1.41	1.42	1.43	1.44	1.45
20°	1.46	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59	1.61
30°	1.63	1.72	1.81	1.91	2.02	2.14	2.27	2.43	2.59	2.78
40°	2.99	3.22	3.50	3.81	4.16	4.57	5.07	5.65	6.36	7.21
50°	8.24	9.55	11.23	13.37	16.37	20.66	26.99	38.03	60.58	125.79
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.29	1.30	1.31	1.32	1.34	1.35	1.35	1.36	1.37	1.37
20°	1.38	1.39	1.40	1.42	1.43	1.44	1.46	1.47	1.49	1.51
30°	1.53	1.61	1.69	1.78	1.89	2.00	2.12	2.26	2.41	2.58
40°	2.77	2.98	3.23	3.52	3.83	4.21	4.67	5.20	5.85	6.63
50°	7.57	8.77	10.30	12.26	15.00	18.92	24.71	34.79	55.39	114.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.23	1.24	1.25	1.26	1.27	1.29	1.29	1.29	1.30	1.30
20°	1.31	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.40	1.42
30°	1.43	1.50	1.58	1.66	1.75	1.85	1.96	2.09	2.22	2.38
40°	2.56	2.75	2.97	3.22	3.51	3.85	4.27	4.75	5.33	6.04
50°	6.89	7.98	9.38	11.15	13.63	17.18	22.43	31.56	50.20	104.11
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.26	1.26	1.27
20°	1.27	1.28	1.29	1.30	1.30	1.31	1.33	1.34	1.35	1.37
30°	1.38	1.45	1.52	1.60	1.69	1.78	1.89	2.01	2.13	2.28
40°	2.45	2.63	2.84	3.08	3.35	3.67	4.07	4.52	5.08	5.75
50°	6.56	7.59	8.91	10.60	12.95	16.32	21.28	29.94	47.61	98.70
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 2.2

SOLON P180/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.17	1.18	1.19	1.20	1.21	1.22	1.22	1.22	1.23	1.23
20°	1.24	1.24	1.25	1.25	1.26	1.27	1.28	1.29	1.31	1.32
30°	1.33	1.40	1.46	1.54	1.62	1.71	1.81	1.92	2.04	2.18
40°	2.34	2.51	2.71	2.93	3.19	3.49	3.86	4.30	4.82	5.46
50°	6.22	7.20	8.45	10.04	12.27	15.45	20.14	28.32	45.01	93.28
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.11	1.12	1.13	1.13	1.15	1.16	1.16	1.16	1.16	1.16
20°	1.16	1.17	1.17	1.17	1.18	1.19	1.19	1.20	1.21	1.22
30°	1.23	1.29	1.35	1.41	1.49	1.57	1.66	1.75	1.86	1.98
40°	2.12	2.27	2.45	2.64	2.87	3.13	3.46	3.84	4.31	4.88
50°	5.55	6.42	7.52	8.93	10.90	13.71	17.86	25.08	39.83	82.44
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.05	1.05	1.06	1.07	1.08	1.09	1.09	1.09	1.09	1.09
20°	1.09	1.09	1.09	1.09	1.10	1.10	1.11	1.11	1.12	1.13
30°	1.13	1.18	1.23	1.29	1.36	1.42	1.50	1.59	1.68	1.78
40°	1.90	2.03	2.18	2.35	2.54	2.77	3.06	3.39	3.80	4.29
50°	4.88	5.64	6.60	7.82	9.53	11.97	15.58	21.84	34.64	71.61
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.02	1.02	1.03	1.04	1.05	1.06	1.06	1.05	1.05	1.05
20°	1.05	1.05	1.05	1.05	1.06	1.06	1.06	1.07	1.07	1.08
30°	1.08	1.13	1.18	1.23	1.29	1.35	1.42	1.50	1.59	1.69
40°	1.79	1.91	2.05	2.21	2.38	2.59	2.86	3.17	3.55	4.00
50°	4.55	5.24	6.13	7.27	8.85	11.10	14.43	20.23	32.04	66.19
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.95	0.96	0.97	0.98	0.99	1.00	0.99	0.99	0.98	0.98
20°	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.98	0.98	0.98
30°	0.98	1.02	1.06	1.11	1.16	1.21	1.27	1.33	1.41	1.49
40°	1.58	1.67	1.79	1.92	2.06	2.23	2.46	2.72	3.04	3.42
50°	3.88	4.46	5.21	6.16	7.48	9.37	12.15	16.99	26.86	55.35
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 3.1

SOLON P180/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.22	2.24	2.25	2.27	2.29	2.31	2.33	2.35	2.37	2.39
20°	2.41	2.44	2.47	2.50	2.53	2.56	2.60	2.64	2.68	2.73
30°	2.77	2.92	3.08	3.26	3.46	3.68	3.92	4.19	4.48	4.82
40°	5.20	5.62	6.11	6.67	7.30	8.05	8.94	9.97	11.22	12.74
50°	14.56	16.90	19.88	23.70	29.02	36.65	47.92	67.56	107.69	223.76
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.21	2.22	2.24	2.26	2.28	2.30	2.31	2.33	2.35	2.37
20°	2.39	2.42	2.44	2.47	2.50	2.53	2.57	2.60	2.65	2.69
30°	2.73	2.88	3.04	3.21	3.41	3.61	3.85	4.11	4.40	4.73
40°	5.10	5.51	5.99	6.53	7.14	7.87	8.74	9.74	10.96	12.44
50°	14.22	16.49	19.40	23.12	28.31	35.74	46.72	65.84	104.92	217.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.19	2.21	2.22	2.24	2.26	2.28	2.30	2.31	2.33	2.35
20°	2.37	2.39	2.42	2.44	2.47	2.50	2.54	2.57	2.61	2.65
30°	2.69	2.84	2.99	3.16	3.35	3.55	3.78	4.04	4.32	4.64
40°	5.00	5.40	5.86	6.39	6.98	7.69	8.53	9.51	10.70	12.15
50°	13.87	16.09	18.92	22.54	27.59	34.83	45.51	64.13	102.16	212.14
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.18	2.19	2.21	2.22	2.24	2.27	2.28	2.29	2.31	2.33
20°	2.35	2.37	2.39	2.42	2.44	2.47	2.50	2.54	2.57	2.61
30°	2.65	2.79	2.94	3.11	3.29	3.49	3.71	3.96	4.23	4.55
40°	4.90	5.28	5.73	6.25	6.82	7.51	8.33	9.28	10.44	11.85
50°	13.53	15.69	18.44	21.96	26.87	33.91	44.30	62.41	99.39	206.33
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.17	2.18	2.20	2.22	2.24	2.26	2.27	2.28	2.30	2.32
20°	2.33	2.35	2.38	2.40	2.43	2.46	2.49	2.52	2.56	2.59
30°	2.63	2.77	2.92	3.08	3.26	3.46	3.68	3.92	4.19	4.50
40°	4.84	5.22	5.67	6.17	6.74	7.42	8.23	9.17	10.31	11.70
50°	13.36	15.48	18.20	21.67	26.52	33.45	43.70	61.55	98.00	203.43
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 3.2

SOLON P180/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.16	2.18	2.19	2.21	2.23	2.25	2.26	2.27	2.29	2.31
20°	2.32	2.34	2.36	2.39	2.41	2.44	2.47	2.50	2.54	2.57
30°	2.61	2.75	2.89	3.05	3.23	3.43	3.64	3.89	4.15	4.45
40°	4.79	5.17	5.61	6.10	6.67	7.33	8.13	9.05	10.18	11.55
50°	13.19	15.28	17.96	21.38	26.16	33.00	43.10	60.69	96.62	200.52
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.15	2.16	2.18	2.19	2.21	2.23	2.24	2.26	2.27	2.28
20°	2.30	2.32	2.34	2.36	2.38	2.41	2.44	2.47	2.50	2.54
30°	2.57	2.70	2.85	3.00	3.18	3.36	3.57	3.81	4.07	4.36
40°	4.69	5.05	5.48	5.96	6.51	7.15	7.93	8.83	9.92	11.25
50°	12.84	14.88	17.48	20.80	25.44	32.08	41.89	58.97	93.85	194.72
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.13	2.14	2.16	2.18	2.20	2.22	2.23	2.24	2.25	2.26
20°	2.28	2.29	2.31	2.33	2.36	2.38	2.41	2.43	2.47	2.50
30°	2.53	2.66	2.80	2.95	3.12	3.30	3.51	3.74	3.98	4.27
40°	4.59	4.94	5.35	5.82	6.35	6.97	7.73	8.60	9.67	10.95
50°	12.50	14.47	17.00	20.23	24.72	31.17	40.68	57.25	91.08	188.91
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.12	2.14	2.15	2.17	2.19	2.21	2.22	2.23	2.24	2.25
20°	2.27	2.28	2.30	2.32	2.34	2.37	2.39	2.42	2.45	2.48
30°	2.51	2.64	2.77	2.92	3.09	3.27	3.47	3.70	3.94	4.22
40°	4.54	4.88	5.29	5.75	6.27	6.88	7.62	8.48	9.54	10.80
50°	12.32	14.27	16.76	19.94	24.37	30.71	40.08	56.39	89.70	186.00
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.11	2.12	2.14	2.15	2.17	2.19	2.20	2.21	2.22	2.23
20°	2.24	2.26	2.27	2.29	2.31	2.33	2.36	2.38	2.41	2.44
30°	2.47	2.60	2.73	2.87	3.03	3.21	3.40	3.62	3.86	4.13
40°	4.44	4.77	5.16	5.61	6.11	6.70	7.42	8.26	9.28	10.51
50°	11.98	13.87	16.28	19.36	23.65	29.80	38.87	54.67	86.93	180.19
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 4.1

SOLON P180/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.92	1.93	1.95	1.96	1.98	2.00	2.01	2.03	2.04	2.06
20°	2.08	2.10	2.13	2.15	2.18	2.21	2.24	2.27	2.31	2.34
30°	2.38	2.51	2.65	2.80	2.97	3.15	3.36	3.59	3.84	4.13
40°	4.45	4.81	5.23	5.71	6.24	6.88	7.64	8.52	9.59	10.89
50°	12.44	14.44	16.98	20.24	24.79	31.31	40.93	57.70	91.97	191.08
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.86	1.87	1.89	1.90	1.92	1.94	1.95	1.96	1.98	1.99
20°	2.01	2.03	2.05	2.07	2.10	2.12	2.15	2.18	2.21	2.25
30°	2.28	2.40	2.53	2.68	2.84	3.01	3.21	3.42	3.66	3.93
40°	4.24	4.57	4.97	5.42	5.92	6.52	7.24	8.07	9.08	10.30
50°	11.77	13.65	16.06	19.13	23.42	29.57	38.65	54.47	86.78	180.25
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.80	1.81	1.82	1.84	1.85	1.87	1.88	1.89	1.91	1.92
20°	1.94	1.95	1.97	1.99	2.01	2.04	2.06	2.09	2.12	2.15
30°	2.18	2.30	2.42	2.55	2.71	2.87	3.05	3.26	3.48	3.73
40°	4.02	4.34	4.70	5.12	5.60	6.16	6.83	7.61	8.57	9.72
50°	11.10	12.87	15.13	18.02	22.05	27.83	36.36	51.23	81.59	169.41
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.74	1.75	1.76	1.77	1.79	1.81	1.82	1.83	1.84	1.85
20°	1.86	1.88	1.89	1.91	1.93	1.95	1.97	2.00	2.02	2.05
30°	2.08	2.19	2.30	2.43	2.57	2.72	2.90	3.09	3.29	3.53
40°	3.80	4.10	4.44	4.83	5.28	5.80	6.43	7.16	8.06	9.14
50°	10.43	12.09	14.21	16.91	20.69	26.10	34.08	47.99	76.41	158.58
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.70	1.72	1.73	1.74	1.76	1.78	1.78	1.79	1.80	1.81
20°	1.82	1.84	1.85	1.87	1.89	1.91	1.93	1.95	1.98	2.00
30°	2.03	2.14	2.25	2.37	2.51	2.65	2.82	3.00	3.20	3.43
40°	3.69	3.98	4.31	4.69	5.12	5.62	6.23	6.94	7.80	8.84
50°	10.09	11.70	13.74	16.36	20.00	25.23	32.94	46.37	73.81	153.16
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 4.2

SOLON P180/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.67	1.68	1.70	1.71	1.73	1.74	1.75	1.76	1.77	1.78
20°	1.79	1.80	1.81	1.83	1.85	1.87	1.89	1.91	1.93	1.96
30°	1.98	2.08	2.19	2.31	2.44	2.58	2.74	2.92	3.11	3.34
40°	3.58	3.86	4.18	4.54	4.95	5.44	6.03	6.71	7.55	8.55
50°	9.76	11.30	13.28	15.80	19.32	24.36	31.80	44.76	71.22	147.74
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.61	1.62	1.63	1.65	1.66	1.68	1.68	1.69	1.70	1.71
20°	1.71	1.72	1.74	1.75	1.76	1.78	1.80	1.82	1.84	1.86
30°	1.88	1.98	2.07	2.18	2.31	2.44	2.59	2.75	2.93	3.14
40°	3.37	3.62	3.92	4.25	4.63	5.08	5.63	6.26	7.03	7.97
50°	9.09	10.52	12.35	14.69	17.95	22.62	29.51	41.52	66.03	136.90
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.55	1.56	1.57	1.58	1.60	1.61	1.62	1.62	1.63	1.63
20°	1.64	1.65	1.66	1.67	1.68	1.70	1.71	1.73	1.74	1.76
30°	1.78	1.87	1.96	2.06	2.17	2.29	2.43	2.58	2.75	2.94
40°	3.15	3.38	3.65	3.96	4.31	4.72	5.23	5.81	6.52	7.39
50°	8.42	9.74	11.43	13.58	16.58	20.89	27.23	38.28	60.84	126.07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.52	1.53	1.54	1.55	1.57	1.58	1.58	1.59	1.59	1.60
20°	1.60	1.61	1.62	1.63	1.64	1.65	1.67	1.68	1.70	1.71
30°	1.73	1.82	1.90	2.00	2.11	2.22	2.35	2.50	2.66	2.84
40°	3.04	3.26	3.52	3.82	4.15	4.54	5.03	5.58	6.27	7.09
50°	8.08	9.35	10.96	13.03	15.90	20.02	26.09	36.66	58.25	120.65
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.46	1.47	1.48	1.49	1.50	1.52	1.52	1.52	1.52	1.53
20°	1.53	1.54	1.54	1.55	1.56	1.57	1.58	1.59	1.60	1.62
30°	1.63	1.71	1.79	1.88	1.98	2.08	2.20	2.33	2.48	2.64
40°	2.82	3.03	3.26	3.53	3.83	4.18	4.62	5.13	5.76	6.51
50°	7.41	8.56	10.04	11.92	14.53	18.28	23.81	33.43	53.06	109.81
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 5.1

SOLON P180/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.84
20°	1.86	1.88	1.90	1.92	1.94	1.97	2.00	2.02	2.06	2.09
30°	2.12	2.24	2.36	2.49	2.64	2.80	2.99	3.19	3.41	3.67
40°	3.96	4.27	4.64	5.06	5.54	6.10	6.77	7.55	8.50	9.65
50°	11.03	12.79	15.05	17.94	21.97	27.74	36.27	51.13	81.49	169.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.70	1.72	1.73	1.74	1.76	1.78	1.79	1.80	1.81	1.82
20°	1.84	1.86	1.87	1.89	1.92	1.94	1.96	1.99	2.02	2.05
30°	2.08	2.19	2.31	2.44	2.59	2.74	2.92	3.12	3.33	3.58
40°	3.85	4.16	4.51	4.92	5.38	5.92	6.57	7.32	8.24	9.35
50°	10.68	12.39	14.57	17.36	21.25	26.83	35.06	49.41	78.72	163.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.69	1.70	1.71	1.73	1.74	1.76	1.77	1.78	1.79	1.80
20°	1.82	1.83	1.85	1.87	1.89	1.91	1.93	1.96	1.98	2.01
30°	2.04	2.15	2.26	2.39	2.53	2.68	2.85	3.04	3.25	3.48
40°	3.75	4.04	4.39	4.78	5.22	5.74	6.37	7.09	7.98	9.05
50°	10.34	11.99	14.09	16.78	20.54	25.91	33.85	47.69	75.95	157.68
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.67	1.68	1.70	1.71	1.73	1.74	1.75	1.76	1.77	1.78
20°	1.79	1.81	1.82	1.84	1.86	1.88	1.90	1.92	1.95	1.97
30°	2.00	2.11	2.21	2.34	2.47	2.62	2.78	2.96	3.16	3.39
40°	3.65	3.93	4.26	4.64	5.06	5.56	6.17	6.87	7.72	8.76
50°	9.99	11.58	13.61	16.20	19.82	25.00	32.65	45.97	73.18	151.87
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.67	1.68	1.69	1.70	1.72	1.74	1.74	1.75	1.76	1.77
20°	1.78	1.80	1.81	1.83	1.84	1.86	1.88	1.91	1.93	1.96
30°	1.98	2.08	2.19	2.31	2.44	2.59	2.75	2.93	3.12	3.35
40°	3.60	3.87	4.20	4.57	4.98	5.47	6.06	6.75	7.59	8.61
50°	9.82	11.38	13.37	15.91	19.46	24.54	32.04	45.11	71.80	148.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 5.2

SOLON P180/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.66	1.67	1.68	1.70	1.71	1.73	1.73	1.74	1.75	1.76
20°	1.77	1.78	1.80	1.81	1.83	1.85	1.87	1.89	1.91	1.94
30°	1.96	2.06	2.17	2.28	2.41	2.55	2.71	2.89	3.08	3.30
40°	3.55	3.82	4.13	4.49	4.90	5.38	5.96	6.64	7.46	8.46
50°	9.65	11.18	13.13	15.62	19.10	24.08	31.44	44.25	70.41	146.06
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.64	1.65	1.67	1.68	1.69	1.71	1.72	1.72	1.73	1.74
20°	1.75	1.76	1.77	1.79	1.80	1.82	1.84	1.85	1.88	1.90
30°	1.92	2.02	2.12	2.23	2.36	2.49	2.64	2.81	3.00	3.21
40°	3.44	3.70	4.01	4.35	4.74	5.20	5.76	6.41	7.20	8.16
50°	9.31	10.77	12.65	15.05	18.39	23.17	30.23	42.53	67.64	140.25
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.63	1.64	1.65	1.66	1.68	1.70	1.70	1.70	1.71	1.72
20°	1.73	1.74	1.75	1.76	1.77	1.79	1.80	1.82	1.84	1.86
30°	1.88	1.97	2.07	2.18	2.30	2.43	2.58	2.74	2.91	3.12
40°	3.34	3.59	3.88	4.21	4.58	5.02	5.56	6.18	6.94	7.86
50°	8.96	10.37	12.17	14.47	17.67	22.26	29.02	40.81	64.88	134.45
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.62	1.63	1.64	1.66	1.67	1.69	1.69	1.69	1.70	1.71
20°	1.71	1.72	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.84
30°	1.86	1.95	2.05	2.15	2.27	2.40	2.54	2.70	2.87	3.07
40°	3.29	3.53	3.82	4.14	4.50	4.93	5.46	6.07	6.81	7.71
50°	8.79	10.17	11.93	14.18	17.31	21.80	28.42	39.95	63.49	131.54
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.60	1.61	1.63	1.64	1.65	1.67	1.67	1.68	1.68	1.69
20°	1.69	1.70	1.71	1.72	1.73	1.74	1.75	1.77	1.79	1.80
30°	1.82	1.91	2.00	2.10	2.21	2.33	2.47	2.62	2.79	2.98
40°	3.19	3.42	3.69	4.00	4.34	4.75	5.26	5.84	6.55	7.41
50°	8.44	9.76	11.45	13.60	16.60	20.89	27.21	38.23	60.72	125.73
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 6.1

SOLON P180/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.42	1.43	1.44	1.45	1.46	1.48	1.49	1.50	1.51	1.52
20°	1.53	1.54	1.56	1.58	1.59	1.61	1.63	1.66	1.68	1.71
30°	1.73	1.82	1.92	2.03	2.15	2.28	2.43	2.59	2.77	2.98
40°	3.21	3.46	3.76	4.10	4.48	4.93	5.47	6.10	6.87	7.80
50°	8.91	10.33	12.15	14.48	17.74	22.39	29.28	41.27	65.76	136.62
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.36	1.37	1.38	1.39	1.40	1.41	1.42	1.43	1.44	1.45
20°	1.46	1.47	1.48	1.50	1.51	1.53	1.55	1.57	1.59	1.61
30°	1.63	1.72	1.81	1.91	2.02	2.14	2.27	2.43	2.59	2.78
40°	2.99	3.22	3.50	3.81	4.16	4.57	5.07	5.65	6.36	7.21
50°	8.24	9.55	11.23	13.37	16.37	20.66	26.99	38.03	60.58	125.79
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.29	1.30	1.31	1.32	1.34	1.35	1.35	1.36	1.37	1.37
20°	1.38	1.39	1.40	1.42	1.43	1.44	1.46	1.47	1.49	1.51
30°	1.53	1.61	1.69	1.78	1.89	2.00	2.12	2.26	2.41	2.58
40°	2.77	2.98	3.23	3.52	3.83	4.21	4.67	5.20	5.85	6.63
50°	7.57	8.77	10.30	12.26	15.00	18.92	24.71	34.79	55.39	114.95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.23	1.24	1.25	1.26	1.27	1.29	1.29	1.29	1.30	1.30
20°	1.31	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.40	1.42
30°	1.43	1.50	1.58	1.66	1.75	1.85	1.96	2.09	2.22	2.38
40°	2.56	2.75	2.97	3.22	3.51	3.85	4.27	4.75	5.33	6.04
50°	6.89	7.98	9.38	11.15	13.63	17.18	22.43	31.56	50.20	104.11
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.26	1.26	1.27
20°	1.27	1.28	1.29	1.30	1.30	1.31	1.33	1.34	1.35	1.37
30°	1.38	1.45	1.52	1.60	1.69	1.78	1.89	2.01	2.13	2.28
40°	2.45	2.63	2.84	3.08	3.35	3.67	4.07	4.52	5.08	5.75
50°	6.56	7.59	8.91	10.60	12.95	16.32	21.28	29.94	47.61	98.70
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 5 Sheet 6.2

SOLON P180/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.17	1.18	1.19	1.20	1.21	1.22	1.22	1.22	1.23	1.23
20°	1.24	1.24	1.25	1.25	1.26	1.27	1.28	1.29	1.31	1.32
30°	1.33	1.40	1.46	1.54	1.62	1.71	1.81	1.92	2.04	2.18
40°	2.34	2.51	2.71	2.93	3.19	3.49	3.86	4.30	4.82	5.46
50°	6.22	7.20	8.45	10.04	12.27	15.45	20.14	28.32	45.01	93.28
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.11	1.12	1.13	1.13	1.15	1.16	1.16	1.16	1.16	1.16
20°	1.16	1.17	1.17	1.17	1.18	1.19	1.19	1.20	1.21	1.22
30°	1.23	1.29	1.35	1.41	1.49	1.57	1.66	1.75	1.86	1.98
40°	2.12	2.27	2.45	2.64	2.87	3.13	3.46	3.84	4.31	4.88
50°	5.55	6.42	7.52	8.93	10.90	13.71	17.86	25.08	39.83	82.44
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.05	1.05	1.06	1.07	1.08	1.09	1.09	1.09	1.09	1.09
20°	1.09	1.09	1.09	1.09	1.10	1.10	1.11	1.11	1.12	1.13
30°	1.13	1.18	1.23	1.29	1.36	1.42	1.50	1.59	1.68	1.78
40°	1.90	2.03	2.18	2.35	2.54	2.77	3.06	3.39	3.80	4.29
50°	4.88	5.64	6.60	7.82	9.53	11.97	15.58	21.84	34.64	71.61
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.02	1.02	1.03	1.04	1.05	1.06	1.06	1.05	1.05	1.05
20°	1.05	1.05	1.05	1.05	1.06	1.06	1.06	1.07	1.07	1.08
30°	1.08	1.13	1.18	1.23	1.29	1.35	1.42	1.50	1.59	1.69
40°	1.79	1.91	2.05	2.21	2.38	2.59	2.86	3.17	3.55	4.00
50°	4.55	5.24	6.13	7.27	8.85	11.10	14.43	20.23	32.04	66.19
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0.95	0.96	0.97	0.98	0.99	1.00	0.99	0.99	0.98	0.98
20°	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.98	0.98	0.98
30°	0.98	1.02	1.06	1.11	1.16	1.21	1.27	1.33	1.41	1.49
40°	1.58	1.67	1.79	1.92	2.06	2.23	2.46	2.72	3.04	3.42
50°	3.88	4.46	5.21	6.16	7.48	9.37	12.15	16.99	26.86	55.35
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 1.1

SOLON P130/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.71	2.73	2.75	2.77	2.80	2.82	2.84	2.87	2.89	2.92
20°	2.95	2.98	3.02	3.06	3.10	3.14	3.19	3.24	3.29	3.35
30°	3.41	3.59	3.79	4.01	4.26	4.52	4.83	5.16	5.53	5.95
40°	6.42	6.94	7.55	8.24	9.02	9.95	11.05	12.32	13.88	15.76
50°	18.01	20.90	24.59	29.31	35.90	45.34	59.28	83.58	133.23	276.82
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.70	2.71	2.74	2.76	2.78	2.81	2.83	2.85	2.87	2.90
20°	2.93	2.96	2.99	3.03	3.07	3.11	3.16	3.20	3.25	3.31
30°	3.37	3.55	3.74	3.96	4.20	4.46	4.76	5.09	5.44	5.85
40°	6.32	6.82	7.42	8.10	8.86	9.77	10.85	12.09	13.62	15.46
50°	17.66	20.49	24.11	28.73	35.18	44.42	58.07	81.86	130.46	271.02
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.68	2.70	2.72	2.74	2.76	2.79	2.81	2.83	2.85	2.88
20°	2.91	2.94	2.97	3.00	3.04	3.08	3.12	3.17	3.22	3.27
30°	3.33	3.50	3.70	3.91	4.15	4.40	4.69	5.01	5.36	5.76
40°	6.21	6.71	7.29	7.96	8.70	9.59	10.65	11.86	13.36	15.16
50°	17.32	20.09	23.63	28.15	34.46	43.51	56.87	80.14	127.69	265.21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.67	2.68	2.70	2.73	2.75	2.77	2.79	2.81	2.83	2.86
20°	2.88	2.91	2.94	2.98	3.01	3.05	3.09	3.14	3.18	3.23
30°	3.29	3.46	3.65	3.86	4.09	4.34	4.62	4.93	5.28	5.67
40°	6.11	6.60	7.17	7.81	8.54	9.41	10.44	11.64	13.10	14.86
50°	16.97	19.68	23.15	27.57	33.75	42.60	55.66	78.42	124.92	259.40
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.66	2.68	2.70	2.72	2.74	2.77	2.78	2.80	2.82	2.85
20°	2.87	2.90	2.93	2.96	3.00	3.03	3.07	3.12	3.16	3.21
30°	3.27	3.44	3.62	3.83	4.06	4.31	4.59	4.90	5.23	5.62
40°	6.06	6.54	7.10	7.74	8.46	9.32	10.34	11.52	12.97	14.71
50°	16.80	19.48	22.91	27.28	33.39	42.14	55.06	77.56	123.54	256.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 1.2

SOLON P130/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.65	2.67	2.69	2.71	2.73	2.76	2.77	2.79	2.81	2.84
20°	2.86	2.89	2.92	2.95	2.98	3.02	3.06	3.10	3.15	3.20
30°	3.25	3.42	3.60	3.80	4.03	4.27	4.55	4.86	5.19	5.58
40°	6.01	6.48	7.04	7.67	8.39	9.23	10.24	11.41	12.84	14.56
50°	16.63	19.28	22.67	26.99	33.03	41.68	54.45	76.70	122.15	253.59
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.63	2.65	2.67	2.69	2.72	2.74	2.76	2.77	2.79	2.82
20°	2.84	2.86	2.89	2.92	2.95	2.99	3.03	3.07	3.11	3.16
30°	3.21	3.37	3.55	3.75	3.97	4.21	4.48	4.78	5.11	5.48
40°	5.91	6.37	6.91	7.53	8.23	9.05	10.04	11.18	12.58	14.26
50°	16.29	18.88	22.19	26.42	32.32	40.77	53.24	74.98	119.38	247.78
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.62	2.64	2.66	2.68	2.70	2.73	2.74	2.76	2.77	2.79
20°	2.82	2.84	2.87	2.89	2.93	2.96	2.99	3.03	3.07	3.12
30°	3.17	3.33	3.50	3.70	3.92	4.15	4.41	4.71	5.03	5.39
40°	5.80	6.26	6.79	7.39	8.07	8.87	9.84	10.95	12.32	13.97
50°	15.94	18.47	21.71	25.84	31.60	39.85	52.04	73.26	116.62	241.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.61	2.63	2.65	2.67	2.69	2.72	2.73	2.75	2.76	2.78
20°	2.80	2.83	2.85	2.88	2.91	2.94	2.98	3.02	3.06	3.10
30°	3.15	3.31	3.48	3.67	3.89	4.12	4.38	4.67	4.98	5.35
40°	5.75	6.20	6.72	7.32	7.99	8.78	9.74	10.84	12.19	13.82
50°	15.77	18.27	21.47	25.55	31.24	39.40	51.43	72.40	115.23	239.07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.60	2.61	2.63	2.65	2.68	2.70	2.71	2.73	2.74	2.76
20°	2.78	2.80	2.83	2.85	2.88	2.91	2.95	2.98	3.02	3.06
30°	3.11	3.26	3.43	3.62	3.83	4.06	4.31	4.59	4.90	5.25
40°	5.65	6.09	6.60	7.17	7.83	8.60	9.53	10.61	11.93	13.52
50°	15.42	17.87	20.98	24.97	30.52	38.48	50.23	70.68	112.46	233.26
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 2.1

SOLON P130/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.41	2.43	2.45	2.46	2.49	2.51	2.53	2.55	2.57	2.59
20°	2.62	2.65	2.68	2.71	2.75	2.79	2.83	2.87	2.92	2.96
30°	3.02	3.18	3.36	3.55	3.77	4.00	4.27	4.56	4.88	5.25
40°	5.67	6.13	6.66	7.27	7.96	8.78	9.75	10.87	12.24	13.90
50°	15.89	18.43	21.69	25.85	31.66	39.99	52.29	73.72	117.50	244.15
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.35	2.36	2.38	2.40	2.42	2.45	2.46	2.48	2.50	2.52
20°	2.55	2.57	2.60	2.63	2.66	2.70	2.74	2.78	2.82	2.87
30°	2.92	3.07	3.24	3.43	3.64	3.86	4.11	4.40	4.70	5.05
40°	5.45	5.89	6.40	6.98	7.64	8.42	9.35	10.42	11.73	13.32
50°	15.22	17.65	20.76	24.74	30.30	38.25	50.00	70.48	112.32	233.31
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.29	2.30	2.32	2.34	2.36	2.38	2.40	2.41	2.43	2.45
20°	2.47	2.50	2.52	2.55	2.58	2.61	2.65	2.69	2.73	2.77
30°	2.82	2.97	3.13	3.30	3.50	3.72	3.96	4.23	4.52	4.86
40°	5.23	5.65	6.14	6.69	7.32	8.06	8.95	9.97	11.22	12.73
50°	14.54	16.87	19.84	23.63	28.93	36.52	47.72	67.24	107.13	222.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.22	2.24	2.26	2.27	2.29	2.32	2.33	2.34	2.36	2.38
20°	2.40	2.42	2.45	2.47	2.50	2.53	2.56	2.60	2.63	2.67
30°	2.72	2.86	3.01	3.18	3.37	3.57	3.80	4.06	4.34	4.66
40°	5.02	5.41	5.88	6.40	7.00	7.70	8.54	9.52	10.71	12.15
50°	13.87	16.09	18.91	22.52	27.56	34.78	45.44	64.01	101.94	211.64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.19	2.21	2.23	2.24	2.26	2.28	2.30	2.31	2.33	2.34
20°	2.36	2.38	2.41	2.43	2.46	2.49	2.52	2.55	2.59	2.63
30°	2.67	2.81	2.95	3.12	3.30	3.50	3.73	3.98	4.25	4.56
40°	4.91	5.29	5.74	6.26	6.84	7.52	8.34	9.29	10.45	11.86
50°	13.54	15.69	18.45	21.97	26.88	33.91	44.30	62.39	99.35	206.22
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 2.2

SOLON P130/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.16	2.18	2.19	2.21	2.23	2.25	2.26	2.28	2.29	2.31
20°	2.33	2.35	2.37	2.39	2.42	2.44	2.47	2.51	2.54	2.58
30°	2.62	2.75	2.90	3.06	3.24	3.43	3.65	3.89	4.16	4.46
40°	4.80	5.17	5.61	6.11	6.67	7.34	8.14	9.07	10.20	11.57
50°	13.20	15.30	17.99	21.41	26.19	33.04	43.16	60.77	96.75	200.80
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.10	2.12	2.13	2.15	2.17	2.19	2.20	2.21	2.22	2.24
20°	2.25	2.27	2.29	2.31	2.33	2.36	2.39	2.42	2.45	2.48
30°	2.52	2.64	2.78	2.94	3.11	3.29	3.49	3.72	3.97	4.26
40°	4.58	4.94	5.35	5.82	6.35	6.98	7.74	8.62	9.69	10.98
50°	12.53	14.52	17.06	20.30	24.83	31.31	40.87	57.53	91.57	189.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.04	2.05	2.07	2.09	2.10	2.12	2.13	2.14	2.15	2.16
20°	2.18	2.19	2.21	2.23	2.25	2.27	2.30	2.32	2.35	2.38
30°	2.42	2.54	2.67	2.81	2.97	3.14	3.34	3.56	3.79	4.06
40°	4.37	4.70	5.09	5.53	6.03	6.62	7.34	8.16	9.18	10.40
50°	11.86	13.74	16.13	19.19	23.46	29.57	38.59	54.30	86.38	179.13
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.01	2.02	2.04	2.05	2.07	2.09	2.10	2.11	2.12	2.13
20°	2.14	2.16	2.17	2.19	2.21	2.23	2.25	2.28	2.31	2.34
30°	2.37	2.48	2.61	2.75	2.91	3.07	3.26	3.47	3.70	3.96
40°	4.26	4.58	4.96	5.39	5.87	6.44	7.14	7.94	8.92	10.11
50°	11.53	13.35	15.67	18.64	22.77	28.70	37.45	52.68	83.78	173.71
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.95	1.96	1.97	1.99	2.01	2.03	2.03	2.04	2.05	2.06
20°	2.07	2.08	2.09	2.11	2.13	2.15	2.17	2.19	2.21	2.24
30°	2.27	2.38	2.50	2.63	2.77	2.93	3.11	3.30	3.52	3.76
40°	4.04	4.34	4.69	5.10	5.55	6.08	6.73	7.49	8.41	9.52
50°	10.86	12.56	14.74	17.53	21.41	26.96	35.16	49.44	78.60	162.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 3.1

SOLON P130/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.27	3.29	3.31	3.34	3.37	3.40	3.43	3.46	3.49	3.52
20°	3.56	3.60	3.64	3.69	3.74	3.80	3.85	3.91	3.98	4.05
30°	4.12	4.35	4.59	4.86	5.16	5.48	5.85	6.26	6.71	7.22
40°	7.79	8.43	9.17	10.01	10.97	12.10	13.44	14.98	16.88	19.16
50°	21.90	25.42	29.91	35.66	43.68	55.16	72.13	101.70	162.12	336.87
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.25	3.27	3.30	3.32	3.35	3.38	3.41	3.44	3.47	3.50
20°	3.54	3.58	3.62	3.66	3.71	3.77	3.82	3.88	3.94	4.01
30°	4.08	4.31	4.54	4.81	5.11	5.42	5.78	6.19	6.62	7.12
40°	7.69	8.31	9.04	9.87	10.81	11.92	13.24	14.76	16.62	18.87
50°	21.56	25.02	29.43	35.08	42.96	54.25	70.93	99.98	159.35	331.06
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.24	3.26	3.28	3.31	3.34	3.37	3.39	3.42	3.45	3.48
20°	3.51	3.55	3.59	3.64	3.68	3.73	3.79	3.85	3.91	3.97
30°	4.04	4.26	4.50	4.76	5.05	5.36	5.72	6.11	6.54	7.03
40°	7.59	8.20	8.91	9.73	10.65	11.74	13.03	14.53	16.36	18.57
50°	21.22	24.61	28.95	34.50	42.24	53.34	69.72	98.26	156.58	325.25
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.22	3.24	3.27	3.29	3.32	3.35	3.37	3.40	3.43	3.46
20°	3.49	3.53	3.57	3.61	3.66	3.70	3.76	3.81	3.87	3.94
30°	4.00	4.22	4.45	4.71	4.99	5.30	5.65	6.03	6.46	6.94
40°	7.49	8.09	8.79	9.59	10.49	11.56	12.83	14.30	16.10	18.27
50°	20.87	24.21	28.47	33.92	41.53	52.42	68.51	96.54	153.82	319.44
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.21	3.23	3.26	3.28	3.31	3.34	3.37	3.39	3.42	3.45
20°	3.48	3.52	3.55	3.60	3.64	3.69	3.74	3.80	3.85	3.92
30°	3.98	4.20	4.42	4.68	4.96	5.27	5.61	6.00	6.41	6.89
40°	7.43	8.03	8.72	9.52	10.41	11.47	12.73	14.19	15.97	18.12
50°	20.70	24.01	28.23	33.63	41.17	51.96	67.91	95.68	152.43	316.54
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 3.2

SOLON P130/6+ (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.20	3.23	3.25	3.28	3.30	3.33	3.36	3.38	3.41	3.44
20°	3.47	3.50	3.54	3.58	3.63	3.67	3.72	3.78	3.84	3.90
30°	3.96	4.17	4.40	4.65	4.93	5.23	5.58	5.96	6.37	6.85
40°	7.38	7.97	8.66	9.45	10.33	11.38	12.63	14.07	15.84	17.97
50°	20.53	23.80	27.99	33.34	40.81	51.51	67.30	94.82	151.05	313.64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.19	3.21	3.23	3.26	3.29	3.32	3.34	3.36	3.39	3.42
20°	3.45	3.48	3.52	3.56	3.60	3.64	3.69	3.74	3.80	3.86
30°	3.92	4.13	4.35	4.60	4.88	5.17	5.51	5.88	6.29	6.76
40°	7.28	7.86	8.53	9.30	10.17	11.20	12.43	13.84	15.58	17.67
50°	20.18	23.40	27.51	32.76	40.09	50.59	66.10	93.10	148.28	307.83
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.17	3.19	3.22	3.24	3.27	3.30	3.32	3.34	3.37	3.40
20°	3.42	3.46	3.49	3.53	3.57	3.61	3.66	3.71	3.76	3.82
30°	3.88	4.09	4.31	4.55	4.82	5.11	5.44	5.81	6.21	6.66
40°	7.18	7.75	8.41	9.16	10.01	11.02	12.23	13.62	15.32	17.38
50°	19.84	23.00	27.03	32.19	39.38	49.68	64.89	91.39	145.51	302.02
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.17	3.19	3.21	3.24	3.26	3.29	3.31	3.33	3.36	3.38
20°	3.41	3.44	3.48	3.52	3.56	3.60	3.64	3.69	3.75	3.80
30°	3.86	4.07	4.28	4.52	4.79	5.08	5.41	5.77	6.16	6.62
40°	7.13	7.69	8.34	9.09	9.93	10.93	12.12	13.50	15.19	17.23
50°	19.67	22.79	26.79	31.90	39.02	49.22	64.29	90.53	144.13	299.11
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	3.15	3.17	3.20	3.22	3.25	3.28	3.30	3.32	3.34	3.36
20°	3.39	3.42	3.45	3.49	3.53	3.57	3.61	3.66	3.71	3.77
30°	3.82	4.02	4.23	4.47	4.73	5.02	5.34	5.69	6.08	6.53
40°	7.03	7.58	8.22	8.95	9.77	10.75	11.92	13.27	14.93	16.93
50°	19.32	22.39	26.31	31.32	38.30	48.31	63.08	88.81	141.36	293.30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 4.1

SOLON P130/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.96	2.98	3.01	3.03	3.06	3.09	3.11	3.14	3.16	3.20
20°	3.23	3.27	3.30	3.35	3.39	3.44	3.49	3.55	3.60	3.67
30°	3.73	3.94	4.16	4.40	4.67	4.96	5.29	5.66	6.06	6.53
40°	7.04	7.62	8.29	9.05	9.91	10.93	12.14	13.53	15.24	17.31
50°	19.78	22.96	27.02	32.20	39.44	49.82	65.14	91.84	146.40	304.19
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.90	2.92	2.94	2.97	2.99	3.02	3.04	3.07	3.09	3.12
20°	3.16	3.19	3.23	3.27	3.31	3.35	3.40	3.46	3.51	3.57
30°	3.63	3.83	4.04	4.28	4.54	4.82	5.14	5.49	5.88	6.33
40°	6.83	7.38	8.02	8.76	9.59	10.57	11.74	13.08	14.73	16.73
50°	19.11	22.17	26.09	31.09	38.07	48.08	62.86	88.60	141.21	293.36
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.84	2.86	2.88	2.90	2.93	2.96	2.98	3.00	3.02	3.05
20°	3.08	3.11	3.15	3.19	3.23	3.27	3.31	3.36	3.42	3.47
30°	3.53	3.72	3.93	4.15	4.41	4.68	4.98	5.33	5.70	6.13
40°	6.61	7.14	7.76	8.47	9.27	10.21	11.33	12.63	14.22	16.14
50°	18.44	21.39	25.16	29.98	36.71	46.34	60.57	85.37	136.02	282.52
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.78	2.80	2.82	2.84	2.87	2.89	2.91	2.93	2.96	2.98
20°	3.01	3.04	3.07	3.11	3.14	3.18	3.23	3.27	3.32	3.38
30°	3.43	3.62	3.81	4.03	4.27	4.53	4.83	5.16	5.52	5.93
40°	6.39	6.90	7.50	8.18	8.94	9.85	10.93	12.18	13.71	15.56
50°	17.77	20.61	24.24	28.87	35.34	44.61	58.29	82.13	130.83	271.69
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.75	2.77	2.79	2.81	2.83	2.86	2.88	2.90	2.92	2.95
20°	2.97	3.00	3.03	3.07	3.10	3.14	3.18	3.23	3.28	3.33
30°	3.38	3.56	3.75	3.97	4.21	4.46	4.75	5.08	5.43	5.83
40°	6.28	6.78	7.37	8.03	8.78	9.67	10.73	11.96	13.46	15.27
50°	17.44	20.22	23.77	28.32	34.66	43.74	57.15	80.51	128.24	266.27
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 4.2

SOLON P130/6+ (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1.05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.72	2.74	2.76	2.78	2.80	2.83	2.85	2.86	2.89	2.91
20°	2.93	2.96	2.99	3.03	3.06	3.10	3.14	3.18	3.23	3.28
30°	3.33	3.51	3.70	3.91	4.14	4.39	4.68	4.99	5.34	5.73
40°	6.17	6.66	7.24	7.89	8.62	9.49	10.53	11.73	13.20	14.98
50°	17.10	19.83	23.31	27.76	33.97	42.87	56.01	78.89	125.65	260.85
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.66	2.67	2.69	2.71	2.74	2.76	2.78	2.80	2.82	2.84
20°	2.86	2.89	2.91	2.95	2.98	3.01	3.05	3.09	3.14	3.18
30°	3.23	3.40	3.58	3.78	4.01	4.25	4.52	4.82	5.15	5.53
40°	5.96	6.43	6.97	7.60	8.30	9.13	10.13	11.28	12.69	14.39
50°	16.43	19.04	22.38	26.65	32.60	41.13	53.72	75.66	120.46	250.01
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.59	2.61	2.63	2.65	2.67	2.70	2.71	2.73	2.75	2.77
20°	2.79	2.81	2.84	2.86	2.90	2.93	2.96	3.00	3.04	3.09
30°	3.13	3.29	3.47	3.66	3.88	4.10	4.37	4.66	4.97	5.33
40°	5.74	6.19	6.71	7.31	7.98	8.77	9.73	10.83	12.18	13.81
50°	15.76	18.26	21.46	25.54	31.24	39.40	51.44	72.42	115.27	239.18
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.56	2.58	2.60	2.62	2.64	2.67	2.68	2.70	2.71	2.73
20°	2.75	2.77	2.80	2.82	2.85	2.89	2.92	2.96	3.00	3.04
30°	3.08	3.24	3.41	3.60	3.81	4.03	4.29	4.57	4.88	5.23
40°	5.63	6.07	6.58	7.16	7.81	8.59	9.52	10.60	11.92	13.52
50°	15.42	17.87	20.99	24.99	30.55	38.53	50.30	70.80	112.68	233.76
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.50	2.52	2.54	2.56	2.58	2.60	2.61	2.63	2.64	2.66
20°	2.68	2.70	2.72	2.74	2.77	2.80	2.83	2.87	2.90	2.94
30°	2.98	3.13	3.30	3.48	3.68	3.89	4.13	4.40	4.70	5.03
40°	5.41	5.83	6.32	6.87	7.49	8.23	9.12	10.15	11.41	12.93
50°	14.75	17.09	20.07	23.88	29.19	36.79	48.01	67.56	107.49	222.92
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 5.1

SOLON P130/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.71	2.73	2.75	2.77	2.80	2.82	2.84	2.87	2.89	2.92
20°	2.95	2.98	3.02	3.06	3.10	3.14	3.19	3.24	3.29	3.35
30°	3.41	3.59	3.79	4.01	4.26	4.52	4.83	5.16	5.53	5.95
40°	6.42	6.94	7.55	8.24	9.02	9.95	11.05	12.32	13.88	15.76
50°	18.01	20.90	24.59	29.31	35.90	45.34	59.28	83.58	133.23	276.82
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.70	2.71	2.74	2.76	2.78	2.81	2.83	2.85	2.87	2.90
20°	2.93	2.96	2.99	3.03	3.07	3.11	3.16	3.20	3.25	3.31
30°	3.37	3.55	3.74	3.96	4.20	4.46	4.76	5.09	5.44	5.85
40°	6.32	6.82	7.42	8.10	8.86	9.77	10.85	12.09	13.62	15.46
50°	17.66	20.49	24.11	28.73	35.18	44.42	58.07	81.86	130.46	271.02
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.68	2.70	2.72	2.74	2.76	2.79	2.81	2.83	2.85	2.88
20°	2.91	2.94	2.97	3.00	3.04	3.08	3.12	3.17	3.22	3.27
30°	3.33	3.50	3.70	3.91	4.15	4.40	4.69	5.01	5.36	5.76
40°	6.21	6.71	7.29	7.96	8.70	9.59	10.65	11.86	13.36	15.16
50°	17.32	20.09	23.63	28.15	34.46	43.51	56.87	80.14	127.69	265.21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.67	2.68	2.70	2.73	2.75	2.77	2.79	2.81	2.83	2.86
20°	2.88	2.91	2.94	2.98	3.01	3.05	3.09	3.14	3.18	3.23
30°	3.29	3.46	3.65	3.86	4.09	4.34	4.62	4.93	5.28	5.67
40°	6.11	6.60	7.17	7.81	8.54	9.41	10.44	11.64	13.10	14.86
50°	16.97	19.68	23.15	27.57	33.75	42.60	55.66	78.42	124.92	259.40
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.66	2.68	2.70	2.72	2.74	2.77	2.78	2.80	2.82	2.85
20°	2.87	2.90	2.93	2.96	3.00	3.03	3.07	3.12	3.16	3.21
30°	3.27	3.44	3.62	3.83	4.06	4.31	4.59	4.90	5.23	5.62
40°	6.06	6.54	7.10	7.74	8.46	9.32	10.34	11.52	12.97	14.71
50°	16.80	19.48	22.91	27.28	33.39	42.14	55.06	77.56	123.54	256.49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 5.2

SOLON P130/6+ (Horizontal Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.65	2.67	2.69	2.71	2.73	2.76	2.77	2.79	2.81	2.84
20°	2.86	2.89	2.92	2.95	2.98	3.02	3.06	3.10	3.15	3.20
30°	3.25	3.42	3.60	3.80	4.03	4.27	4.55	4.86	5.19	5.58
40°	6.01	6.48	7.04	7.67	8.39	9.23	10.24	11.41	12.84	14.56
50°	16.63	19.28	22.67	26.99	33.03	41.68	54.45	76.70	122.15	253.59
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.63	2.65	2.67	2.69	2.72	2.74	2.76	2.77	2.79	2.82
20°	2.84	2.86	2.89	2.92	2.95	2.99	3.03	3.07	3.11	3.16
30°	3.21	3.37	3.55	3.75	3.97	4.21	4.48	4.78	5.11	5.48
40°	5.91	6.37	6.91	7.53	8.23	9.05	10.04	11.18	12.58	14.26
50°	16.29	18.88	22.19	26.42	32.32	40.77	53.24	74.98	119.38	247.78
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.62	2.64	2.66	2.68	2.70	2.73	2.74	2.76	2.77	2.79
20°	2.82	2.84	2.87	2.89	2.93	2.96	2.99	3.03	3.07	3.12
30°	3.17	3.33	3.50	3.70	3.92	4.15	4.41	4.71	5.03	5.39
40°	5.80	6.26	6.79	7.39	8.07	8.87	9.84	10.95	12.32	13.97
50°	15.94	18.47	21.71	25.84	31.60	39.85	52.04	73.26	116.62	241.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.61	2.63	2.65	2.67	2.69	2.72	2.73	2.75	2.76	2.78
20°	2.80	2.83	2.85	2.88	2.91	2.94	2.98	3.02	3.06	3.10
30°	3.15	3.31	3.48	3.67	3.89	4.12	4.38	4.67	4.98	5.35
40°	5.75	6.20	6.72	7.32	7.99	8.78	9.74	10.84	12.19	13.82
50°	15.77	18.27	21.47	25.55	31.24	39.40	51.43	72.40	115.23	239.07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.60	2.61	2.63	2.65	2.68	2.70	2.71	2.73	2.74	2.76
20°	2.78	2.80	2.83	2.85	2.88	2.91	2.95	2.98	3.02	3.06
30°	3.11	3.26	3.43	3.62	3.83	4.06	4.31	4.59	4.90	5.25
40°	5.65	6.09	6.60	7.17	7.83	8.60	9.53	10.61	11.93	13.52
50°	15.42	17.87	20.98	24.97	30.52	38.48	50.23	70.68	112.46	233.26
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 6.1

SOLON P130/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 0.65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.41	2.43	2.45	2.46	2.49	2.51	2.53	2.55	2.57	2.59
20°	2.62	2.65	2.68	2.71	2.75	2.79	2.83	2.87	2.92	2.96
30°	3.02	3.18	3.36	3.55	3.77	4.00	4.27	4.56	4.88	5.25
40°	5.67	6.13	6.66	7.27	7.96	8.78	9.75	10.87	12.24	13.90
50°	15.89	18.43	21.69	25.85	31.66	39.99	52.29	73.72	117.50	244.15
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.35	2.36	2.38	2.40	2.42	2.45	2.46	2.48	2.50	2.52
20°	2.55	2.57	2.60	2.63	2.66	2.70	2.74	2.78	2.82	2.87
30°	2.92	3.07	3.24	3.43	3.64	3.86	4.11	4.40	4.70	5.05
40°	5.45	5.89	6.40	6.98	7.64	8.42	9.35	10.42	11.73	13.32
50°	15.22	17.65	20.76	24.74	30.30	38.25	50.00	70.48	112.32	233.31
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.29	2.30	2.32	2.34	2.36	2.38	2.40	2.41	2.43	2.45
20°	2.47	2.50	2.52	2.55	2.58	2.61	2.65	2.69	2.73	2.77
30°	2.82	2.97	3.13	3.30	3.50	3.72	3.96	4.23	4.52	4.86
40°	5.23	5.65	6.14	6.69	7.32	8.06	8.95	9.97	11.22	12.73
50°	14.54	16.87	19.84	23.63	28.93	36.52	47.72	67.24	107.13	222.48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0.95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.22	2.24	2.26	2.27	2.29	2.32	2.33	2.34	2.36	2.38
20°	2.40	2.42	2.45	2.47	2.50	2.53	2.56	2.60	2.63	2.67
30°	2.72	2.86	3.01	3.18	3.37	3.57	3.80	4.06	4.34	4.66
40°	5.02	5.41	5.88	6.40	7.00	7.70	8.54	9.52	10.71	12.15
50°	13.87	16.09	18.91	22.52	27.56	34.78	45.44	64.01	101.94	211.64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.19	2.21	2.23	2.24	2.26	2.28	2.30	2.31	2.33	2.34
20°	2.36	2.38	2.41	2.43	2.46	2.49	2.52	2.55	2.59	2.63
30°	2.67	2.81	2.95	3.12	3.30	3.50	3.73	3.98	4.25	4.56
40°	4.91	5.29	5.74	6.26	6.84	7.52	8.34	9.29	10.45	11.86
50°	13.54	15.69	18.45	21.97	26.88	33.91	44.30	62.39	99.35	206.22
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 6 Sheet 6.2

SOLON P130/6+ (Horizontal Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Only optimum support and attachment area allowed

Speed pressure $q = 1.05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.16	2.18	2.19	2.21	2.23	2.25	2.26	2.28	2.29	2.31
20°	2.33	2.35	2.37	2.39	2.42	2.44	2.47	2.51	2.54	2.58
30°	2.62	2.75	2.90	3.06	3.24	3.43	3.65	3.89	4.16	4.46
40°	4.80	5.17	5.61	6.11	6.67	7.34	8.14	9.07	10.20	11.57
50°	13.20	15.30	17.99	21.41	26.19	33.04	43.16	60.77	96.75	200.80
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.10	2.12	2.13	2.15	2.17	2.19	2.20	2.21	2.22	2.24
20°	2.25	2.27	2.29	2.31	2.33	2.36	2.39	2.42	2.45	2.48
30°	2.52	2.64	2.78	2.94	3.11	3.29	3.49	3.72	3.97	4.26
40°	4.58	4.94	5.35	5.82	6.35	6.98	7.74	8.62	9.69	10.98
50°	12.53	14.52	17.06	20.30	24.83	31.31	40.87	57.53	91.57	189.97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.04	2.05	2.07	2.09	2.10	2.12	2.13	2.14	2.15	2.16
20°	2.18	2.19	2.21	2.23	2.25	2.27	2.30	2.32	2.35	2.38
30°	2.42	2.54	2.67	2.81	2.97	3.14	3.34	3.56	3.79	4.06
40°	4.37	4.70	5.09	5.53	6.03	6.62	7.34	8.16	9.18	10.40
50°	11.86	13.74	16.13	19.19	23.46	29.57	38.59	54.30	86.38	179.13
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.30 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	2.01	2.02	2.04	2.05	2.07	2.09	2.10	2.11	2.12	2.13
20°	2.14	2.16	2.17	2.19	2.21	2.23	2.25	2.28	2.31	2.34
30°	2.37	2.48	2.61	2.75	2.91	3.07	3.26	3.47	3.70	3.96
40°	4.26	4.58	4.96	5.39	5.87	6.44	7.14	7.94	8.92	10.11
50°	11.53	13.35	15.67	18.64	22.77	28.70	37.45	52.68	83.78	173.71
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1.40 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.95	1.96	1.97	1.99	2.01	2.03	2.03	2.04	2.05	2.06
20°	2.07	2.08	2.09	2.11	2.13	2.15	2.17	2.19	2.21	2.24
30°	2.27	2.38	2.50	2.63	2.77	2.93	3.11	3.30	3.52	3.76
40°	4.04	4.34	4.69	5.10	5.55	6.08	6.73	7.49	8.41	9.52
50°	10.86	12.56	14.74	17.53	21.41	26.96	35.16	49.44	78.60	162.88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Annex 7 Sheet 1.1

SOLON Black 280/10 and SOLON Black 300/10 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0,50 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,47	1,48	1,49	1,51	1,52	1,53	1,54	1,56	1,57	1,58
20°	1,60	1,61	1,63	1,65	1,67	1,70	1,72	1,75	1,77	1,80
30°	1,83	1,93	2,04	2,16	2,29	2,43	2,59	2,77	2,96	3,19
40°	3,44	3,71	4,04	4,41	4,83	5,32	5,91	6,59	7,42	8,43
50°	9,64	11,19	13,17	15,71	19,24	24,31	31,80	44,86	71,53	148,69
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,45	1,46	1,47	1,48	1,50	1,51	1,52	1,53	1,54	1,55
20°	1,56	1,58	1,59	1,61	1,63	1,65	1,67	1,69	1,72	1,75
30°	1,77	1,87	1,97	2,08	2,20	2,33	2,49	2,65	2,84	3,05
40°	3,28	3,54	3,85	4,20	4,59	5,05	5,61	6,25	7,03	7,99
50°	9,12	10,58	12,45	14,84	18,17	22,94	29,99	42,28	67,38	139,97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,75 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,43	1,44	1,45	1,47	1,48	1,49	1,50	1,51	1,52	1,53
20°	1,54	1,55	1,57	1,58	1,60	1,62	1,64	1,66	1,68	1,71
30°	1,73	1,82	1,92	2,03	2,15	2,27	2,42	2,58	2,75	2,96
40°	3,18	3,43	3,72	4,05	4,43	4,87	5,40	6,02	6,78	7,69
50°	8,78	10,18	11,97	14,26	17,45	22,03	28,79	40,56	64,61	134,16
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,80 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,43	1,44	1,45	1,46	1,47	1,49	1,49	1,50	1,51	1,52
20°	1,53	1,54	1,56	1,57	1,59	1,60	1,62	1,64	1,67	1,69
30°	1,71	1,80	1,90	2,00	2,12	2,24	2,38	2,54	2,71	2,91
40°	3,13	3,37	3,66	3,98	4,35	4,78	5,30	5,91	6,65	7,54
50°	8,61	9,98	11,73	13,97	17,09	21,57	28,18	39,70	63,22	131,26
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,85 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,42	1,43	1,44	1,45	1,46	1,48	1,48	1,49	1,50	1,51
20°	1,52	1,53	1,54	1,56	1,57	1,59	1,61	1,63	1,65	1,67
30°	1,69	1,78	1,87	1,97	2,09	2,21	2,35	2,50	2,67	2,86
40°	3,08	3,32	3,60	3,91	4,27	4,69	5,20	5,79	6,52	7,39
50°	8,44	9,78	11,49	13,68	16,74	21,11	27,58	38,84	61,84	128,36
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,90 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,41	1,42	1,43	1,44	1,46	1,47	1,48	1,48	1,49	1,50
20°	1,51	1,52	1,53	1,54	1,56	1,57	1,59	1,61	1,63	1,65
30°	1,67	1,76	1,85	1,95	2,06	2,18	2,31	2,47	2,63	2,82
40°	3,03	3,26	3,53	3,84	4,19	4,60	5,10	5,68	6,39	7,24
50°	8,26	9,57	11,25	13,39	16,38	20,66	26,97	37,98	60,46	125,45
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,40	1,41	1,42	1,43	1,45	1,46	1,47	1,47	1,48	1,49
20°	1,50	1,51	1,52	1,53	1,54	1,56	1,57	1,59	1,61	1,63
30°	1,65	1,74	1,82	1,92	2,03	2,15	2,28	2,43	2,59	2,77
40°	2,98	3,20	3,47	3,77	4,11	4,51	5,00	5,56	6,26	7,09
50°	8,09	9,37	11,01	13,01	16,02	20,20	26,37	37,12	59,07	122,55
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,39	1,40	1,42	1,43	1,44	1,45	1,46	1,46	1,47	1,48
20°	1,48	1,49	1,50	1,52	1,53	1,54	1,56	1,58	1,59	1,61
30°	1,63	1,71	1,80	1,90	2,00	2,12	2,25	2,39	2,55	2,72
40°	2,93	3,15	3,41	3,7	4,03	4,42	4,90	5,45	6,13	6,94
50°	7,92	9,17	10,77	12,81	15,66	19,74	25,77	36,26	57,69	119,64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 1.2

SOLON Black 280/10 und SOLON Black 300/10 + (Vertical Assembly / Pitched Roof or Slanted Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1,05 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,39	1,40	1,41	1,42	1,43	1,45	1,45	1,45	1,46	1,47
20°	1,47	1,48	1,49	1,40	1,51	1,53	1,54	1,56	1,58	1,59
30°	1,61	1,69	1,78	1,87	1,97	2,08	2,21	2,35	2,50	2,68
40°	2,87	3,09	3,34	3,63	3,95	4,33	4,80	5,34	6,00	6,79
50°	7,75	8,97	10,53	12,52	15,30	19,29	25,16	35,40	56,30	116,74
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,10 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,38	1,39	1,40	1,41	1,42	1,44	1,44	1,44	1,45	1,46
20°	1,46	1,47	1,48	1,49	1,50	1,51	1,53	1,54	1,56	1,57
30°	1,59	1,67	1,75	1,84	1,95	2,05	2,18	2,31	2,46	2,63
40°	2,82	3,03	3,28	3,56	3,87	4,24	4,70	5,22	5,87	6,64
50°	7,57	8,77	10,29	12,23	14,95	18,83	24,56	34,54	54,92	113,83
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,15 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,37	1,38	1,39	1,40	1,42	1,43	1,43	1,44	1,44	1,44
20°	1,45	1,46	1,47	1,48	1,49	1,50	1,51	1,52	1,54	1,56
30°	1,57	1,65	1,73	1,82	1,92	2,02	2,14	2,28	2,42	2,59
40°	2,77	2,98	3,21	3,49	3,79	4,15	4,60	5,11	5,74	6,49
50°	7,40	8,56	10,05	11,94	14,59	18,37	23,96	33,68	53,53	110,93
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,20 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,36	1,37	1,38	1,40	1,41	1,42	1,42	1,43	1,43	1,43
20°	1,44	1,45	1,45	1,46	1,47	1,48	1,49	1,51	1,52	1,54
30°	1,55	1,63	1,70	1,79	1,89	1,99	2,11	2,2	2,38	2,54
40°	2,72	2,92	3,15	3,41	3,71	4,06	4,49	4,99	5,61	6,35
50°	7,23	8,36	9,81	11,66	14,23	17,91	23,35	32,82	52,15	108,02
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,25 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,36	1,37	1,38	1,39	1,40	1,41	1,41	1,42	1,42	1,42
20°	1,43	1,43	1,44	1,45	1,46	1,47	1,48	1,49	1,50	1,52
30°	1,53	1,60	1,68	1,77	1,86	1,96	2,07	2,20	2,34	2,49
40°	2,67	2,86	3,09	3,34	3,63	3,97	4,39	4,88	5,48	6,20
50°	7,06	8,16	9,57	11,37	13,87	17,46	22,75	31,96	50,77	105,12
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,35	1,36	1,37	1,38	1,39	1,41	1,41	1,41	1,41	1,41
20°	1,42	1,42	1,43	1,43	1,44	1,45	1,46	1,47	1,49	1,50
30°	1,51	1,58	1,66	1,74	1,83	1,93	2,04	2,16	2,30	2,45
40°	2,62	2,81	3,02	3,27	3,55	3,88	4,29	4,77	5,35	6,05
50°	6,89	7,96	9,33	11,08	13,55	17,00	22,14	31,10	49,38	102,22
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,33	1,32	1,35	1,36	1,38	1,39	1,39	1,39	1,39	1,39
20°	1,39	1,40	1,40	1,41	1,41	1,42	1,43	1,44	1,45	1,46
30°	1,47	1,54	1,61	1,69	1,77	1,87	1,97	2,09	2,21	2,36
40°	2,52	2,69	2,90	3,13	3,39	3,70	4,09	4,54	5,09	5,75
50°	6,54	7,55	8,85	10,50	12,80	16,09	20,94	29,38	46,61	96,41
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,55 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,31	1,32	1,33	1,34	1,35	1,37	1,36	1,36	1,36	1,36
20°	1,36	1,36	1,36	1,37	1,37	1,38	1,38	1,39	1,40	1,40
30°	1,41	1,47	1,54	1,61	1,69	1,77	1,87	1,97	2,09	2,22
40°	2,36	2,52	2,71	2,92	3,15	3,43	3,79	4,20	4,70	5,30
50°	6,02	6,95	8,13	9,63	11,72	14,72	19,13	26,80	42,46	87,69
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 2.1

SOLON Black 280/10 und SOLON Black 300/10 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 0,50 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,24	1,25	1,26	1,27	1,28	1,29	1,30	1,31	1,32	1,33
20°	1,34	1,36	1,37	1,39	1,40	1,42	1,44	1,46	1,48	1,51
30°	1,53	1,62	1,70	1,80	1,91	2,03	2,16	2,31	2,47	2,65
40°	2,86	3,09	3,36	3,67	4,01	4,42	4,91	4,48	6,17	7,01
50°	8,01	9,30	10,94	13,05	15,99	20,20	22,42	37,27	59,43	123,55
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,65 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,15	1,16	1,16	1,17	1,18	1,20	1,20	1,21	1,22	1,22
20°	1,23	1,24	1,25	1,27	1,28	1,29	1,31	1,33	1,34	1,36
30°	1,38	1,45	1,53	1,62	1,71	1,81	1,93	2,06	2,20	2,36
40°	2,54	2,73	2,97	3,23	3,53	3,88	4,31	4,80	5,40	6,13
50°	7,00	8,12	9,55	11,38	13,94	17,60	23,00	32,41	51,65	107,30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,75 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,09	1,09	1,10	1,11	1,12	1,13	1,14	1,14	1,15	1,15
20°	1,16	1,17	1,18	1,19	1,20	1,21	1,22	1,23	1,25	1,27
30°	1,28	1,35	1,42	1,49	1,58	1,67	1,77	1,89	2,01	2,16
40°	2,32	2,50	2,70	2,94	3,21	3,52	3,90	4,35	4,89	5,55
50°	6,33	7,34	8,63	10,27	12,57	15,86	20,72	29,18	46,47	96,46
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,80kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,05	1,06	1,07	1,08	1,09	1,10	1,10	1,11	1,11	1,12
20°	1,12	1,13	1,14	1,15	1,16	1,17	1,18	1,19	1,20	1,22
30°	1,23	1,29	1,36	1,43	1,51	1,60	1,70	1,80	1,92	2,06
40°	2,21	2,38	2,57	2,79	3,04	3,34	3,70	4,12	4,64	5,25
50°	6,00	6,95	8,16	9,72	11,89	14,99	19,57	27,56	43,87	91,04
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,85N/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,02	1,03	1,04	1,05	1,06	1,07	1,07	1,07	1,08	1,08
20°	1,09	1,09	1,10	1,11	1,11	1,12	1,13	1,14	1,16	1,17
30°	1,18	1,24	1,30	1,37	1,45	1,53	1,62	1,72	1,83	1,96
40°	2,10	2,26	2,44	2,65	2,88	3,16	3,50	3,90	4,38	4,96
50°	5,66	6,56	7,70	9,16	11,20	14,12	18,43	25,94	41,28	85,62
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,90\text{kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,99	1,00	1,01	1,02	1,03	1,04	1,04	1,04	1,04	1,05
20°	1,05	1,05	1,06	1,07	1,07	1,08	1,09	1,10	1,11	1,12
30°	1,13	1,19	1,24	1,31	1,38	1,45	1,54	1,64	1,74	1,86
40°	1,99	2,14	2,31	2,50	2,72	2,98	3,30	3,67	4,12	4,67
50°	5,33	6,17	7,24	8,61	10,52	13,25	17,29	24,32	38,68	80,21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,96	0,97	0,98	0,98	0,99	1,00	1,00	1,01	1,01	1,01
20°	1,01	1,02	1,02	1,03	1,03	1,04	1,05	1,05	1,06	1,07
30°	1,08	1,13	1,19	1,25	1,31	1,38	1,46	1,55	1,65	1,76
40°	1,88	2,02	2,18	2,36	2,56	2,80	3,10	3,45	3,87	4,38
50°	4,99	5,77	6,77	8,05	9,83	12,38	16,15	22,70	36,09	74,79
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,93	0,94	0,95	0,95	0,96	0,97	0,97	0,97	0,97	0,97
20°	0,98	0,98	0,98	0,99	0,99	1,00	1,00	1,01	1,02	1,02
30°	1,03	1,08	1,13	1,19	1,25	1,31	1,39	1,47	1,56	1,66
40°	1,78	1,90	2,05	2,21	2,40	2,62	2,90	3,22	3,61	4,09
50°	4,66	5,38	6,31	7,50	9,15	11,52	15,01	21,09	33,50	69,37
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 2.2

SOLON Black 280/10 und SOLON Black 300/10 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum support and attachment area

Speed pressure $q = 1,05 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,90	0,91	0,91	0,92	0,93	0,94	0,94	0,94	0,94	0,94
20°	0,94	0,94	0,94	0,95	0,95	0,95	0,96	0,96	0,97	0,98
30°	0,98	1,03	1,07	1,12	1,18	1,24	1,31	1,38	1,47	1,56
40°	1,67	1,78	1,92	2,07	2,24	2,44	2,70	2,99	3,36	3,80
50°	4,32	4,99	5,85	6,94	8,47	10,65	13,87	19,47	30,90	63,95
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,10 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,87	0,88	0,88	0,89	0,90	0,91	0,90	0,90	0,90	0,90
20°	0,90	0,90	0,90	0,91	0,91	0,91	0,91	0,92	0,92	0,93
30°	0,93	0,97	1,01	1,06	1,11	1,17	1,23	1,30	1,38	1,46
40°	1,56	1,66	1,78	1,92	2,08	2,26	2,50	2,77	3,10	3,50
50°	3,98	4,60	5,39	6,39	7,78	9,78	12,72	17,85	28,31	58,53
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,15 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,84	0,84	0,85	0,86	0,87	0,88	0,87	0,87	0,87	0,87
20°	0,86	0,86	0,85	0,86	0,87	0,87	0,87	0,87	0,88	0,88
30°	0,88	0,92	0,96	1,00	1,05	1,10	1,15	1,22	1,28	1,36
40°	1,45	1,54	1,65	1,78	1,92	2,08	2,30	2,54	2,85	3,21
50°	3,65	4,21	4,92	5,83	7,10	8,91	11,58	16,23	25,71	53,12
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,20 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,81	0,81	0,82	0,83	0,83	0,84	0,84	0,84	0,83	0,83
20°	0,83	0,83	0,83	0,82	0,82	0,82	0,83	0,83	0,83	0,83
30°	0,83	0,87	0,90	0,94	0,98	1,03	1,08	1,13	1,19	1,26
40°	1,34	1,42	1,52	1,63	1,75	1,90	2,09	2,32	2,59	2,92
50°	3,31	3,82	4,46	5,28	6,41	8,04	10,44	14,61	23,12	47,70
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,25 kN/m^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,78	0,78	0,79	0,79	0,80	0,81	0,81	0,80	0,80	0,79
20°	0,79	0,79	0,79	0,78	0,78	0,78	0,78	0,78	0,78	0,78
30°	0,78	0,81	0,84	0,88	0,91	0,95	1,00	1,05	1,10	1,16
40°	1,23	1,30	1,39	1,49	1,59	1,72	1,89	2,09	2,34	2,63
50°	2,98	3,43	4,00	4,72	5,73	7,17	9,30	12,99	20,53	42,28
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,30 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,75	0,75	0,76	0,76	0,77	0,78	0,77	0,77	0,76	0,76
20°	0,75	0,75	0,75	0,74	0,74	0,74	0,74	0,74	0,74	0,73
30°	0,73	0,76	0,79	0,82	0,85	0,88	0,92	0,97	1,01	1,06
40°	1,12	1,19	1,26	1,34	1,43	1,54	1,69	1,87	2,08	2,34
50°	2,64	3,03	3,53	4,17	5,05	6,31	8,16	11,38	17,93	36,86
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,40 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,68	0,69	0,69	0,70	0,71	0,71	0,71	0,70	0,69	0,69
20°	0,68	0,68	0,67	0,66	0,66	0,65	0,65	0,65	0,64	0,64
30°	0,63	0,65	0,67	0,69	0,72	0,74	0,77	0,80	0,83	0,87
40°	0,91	0,95	1,00	1,05	1,11	1,18	1,29	1,42	1,57	1,75
50°	1,97	2,25	2,61	3,06	3,68	4,57	5,87	8,14	12,75	26,03
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,55 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,59	0,60	0,60	0,61	0,61	0,62	0,61	0,60	0,59	0,58
20°	0,57	0,56	0,55	0,54	0,54	0,53	0,52	0,51	0,50	0,49
30°	0,48	0,49	0,50	0,51	0,52	0,53	0,54	0,55	0,56	0,57
40°	0,58	0,59	0,60	0,62	0,63	0,64	0,69	0,74	0,80	0,88
50°	0,97	1,08	1,22	1,39	1,63	1,96	2,45	3,28	4,96	9,77
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 3.1

SOLON Black 280/10 and SOLON Black 300/10 (Max Bel. with vertical assembly in the assembly area = $a_{opt} \pm Mw$ for the inclined Roof)

Allowable snow loads on the ground s_{kallow} in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0,50 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,67	1,68	1,69	1,70	1,72	1,74	1,75	1,76	1,78	1,79
20°	1,81	1,83	1,85	1,87	1,90	1,92	1,95	1,98	2,01	2,05
30°	2,08	2,20	2,32	2,45	2,60	2,76	2,95	3,15	3,37	3,63
40°	3,92	4,23	4,60	5,03	5,50	6,07	6,74	7,52	8,47	9,62
50°	11,00	12,77	15,03	17,92	21,96	27,74	36,29	51,18	81,61	169,63
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,65 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,64	1,65	1,67	1,68	1,69	1,71	1,72	1,73	1,75	1,76
20°	1,78	1,79	1,81	1,83	1,85	1,88	1,90	1,93	1,96	1,99
30°	2,02	2,13	2,25	2,37	2,52	2,67	2,84	3,04	3,25	3,49
40°	3,76	4,06	4,41	4,81	5,27	5,80	6,44	7,18	8,08	9,17
50°	10,48	12,16	14,31	17,05	20,88	26,37	34,48	48,60	77,46	160,92
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,75 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,63	1,64	1,65	1,66	1,68	1,70	1,70	1,71	1,73	1,74
20°	1,75	1,77	1,79	1,81	1,83	1,85	1,87	1,90	1,92	1,95
30°	1,98	2,09	2,20	2,32	2,46	2,61	2,78	2,96	3,17	3,40
40°	3,66	3,95	4,29	4,67	5,11	5,62	6,24	6,95	7,82	8,88
50°	10,14	11,76	13,83	16,47	20,17	25,46	33,27	46,88	74,69	155,11
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,80 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,62	1,63	1,64	1,66	1,67	1,69	1,70	1,71	1,72	1,73
20°	1,74	1,76	1,77	1,79	1,81	1,83	1,85	1,88	1,91	1,93
30°	1,96	2,07	2,17	2,30	2,43	2,58	2,74	2,92	3,12	3,35
40°	3,61	3,89	4,22	4,60	5,03	5,53	6,14	6,84	7,69	8,73
50°	9,97	11,56	13,59	16,19	19,81	25,00	32,66	46,02	73,30	152,21
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,85 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,61	1,62	1,63	1,65	1,66	1,68	1,69	1,70	1,71	1,72
20°	1,73	1,75	1,76	1,78	1,80	1,82	1,84	1,86	1,89	1,91
30°	1,94	2,04	2,15	2,27	2,40	2,54	2,71	2,89	3,08	3,31
40°	3,56	3,84	4,16	4,53	4,95	5,44	6,04	6,72	7,56	8,58
50°	9,79	11,35	13,35	15,90	19,45	25,54	32,06	45,16	71,92	149,30
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,90 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,60	1,61	1,63	1,64	1,65	1,67	1,68	1,69	1,70	1,71
20°	1,72	1,73	1,75	1,76	1,78	1,80	1,82	1,85	1,87	1,90
30°	1,92	2,02	2,13	2,24	2,37	2,51	2,67	2,85	3,04	3,26
40°	3,51	3,78	4,10	4,46	4,87	5,35	5,93	6,61	7,43	8,43
50°	9,62	11,15	13,11	15,61	19,09	24,09	31,46	44,30	70,53	146,40
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,95 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,60	1,61	1,62	1,63	1,65	1,66	1,67	1,68	1,69	1,70
20°	1,71	1,72	1,74	1,75	1,77	1,79	1,81	1,83	1,85	1,88
30°	1,90	2,00	2,10	2,22	2,35	2,48	2,64	2,81	3,00	3,21
40°	3,46	3,72	4,03	4,39	4,79	5,26	5,83	6,49	7,30	8,28
50°	9,45	10,95	12,87	15,32	18,73	23,63	30,85	43,44	69,15	143,49
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,00 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,59	1,60	1,61	1,62	1,64	1,65	1,66	1,67	1,68	1,69
20°	1,70	1,71	1,72	1,74	1,75	1,77	1,79	1,81	1,83	1,86
30°	1,88	1,98	2,08	2,19	2,32	2,45	2,60	2,77	2,96	3,17
40°	3,41	3,67	3,97	4,32	4,71	5,17	5,73	6,38	7,17	8,13
50°	9,28	10,75	12,63	15,03	18,38	23,17	30,25	42,58	67,77	140,59
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 3.2

SOLON Black 280/10 and SOLON Black 300/10 (Max Bel. with vertical assembly in the assembly area = aopt +/-Mw for the inclined Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the roof and the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1,05 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,58	1,59	1,60	1,62	1,63	1,65	1,65	1,66	1,67	1,68
20°	1,69	1,70	1,71	1,72	1,74	1,76	1,77	1,79	1,82	1,84
30°	1,86	1,96	2,06	2,17	2,29	2,42	2,57	2,74	2,92	3,12
40°	3,35	3,61	3,91	4,25	4,63	5,08	5,63	6,27	7,04	7,98
50°	9,11	10,55	12,39	14,74	18,02	22,71	29,65	41,72	66,38	137,68
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,10 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,57	1,58	1,60	1,61	1,62	1,64	1,64	1,65	1,66	1,67
20°	1,67	1,69	1,70	1,71	1,73	1,74	1,76	1,78	1,80	1,82
30°	1,84	1,93	2,03	2,14	2,26	2,39	2,54	2,70	2,87	3,08
40°	3,30	3,55	3,84	4,18	4,55	4,99	5,53	6,15	6,91	7,83
50°	8,93	10,34	12,15	14,45	17,66	22,26	29,04	40,86	65,00	134,78
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,15 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,57	1,58	1,59	1,60	1,62	1,63	1,63	1,64	1,65	1,65
20°	1,66	1,67	1,68	1,70	1,71	1,73	1,74	1,76	1,78	1,80
30°	1,82	1,91	2,01	2,11	2,23	2,36	2,50	2,66	2,83	3,03
40°	3,25	3,50	3,78	4,10	4,47	4,90	5,43	6,04	6,78	7,68
50°	8,76	10,14	11,91	14,16	17,30	21,80	28,44	40,00	63,61	131,88
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,20 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,56	1,57	1,58	1,59	1,61	1,62	1,63	1,63	1,64	1,64
20°	1,65	1,66	1,67	1,68	1,70	1,71	1,73	1,74	1,76	1,78
30°	1,80	1,89	1,98	2,09	2,20	2,33	2,47	2,62	2,79	2,98
40°	3,20	3,44	3,72	4,03	4,39	4,81	5,33	5,92	6,65	7,53
50°	8,59	9,94	11,67	13,87	16,94	21,34	27,84	39,14	62,23	128,97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,25 kN/m^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,55	1,56	1,57	1,58	1,60	1,61	1,62	1,62	1,63	1,63
20°	1,64	1,65	1,66	1,67	1,68	1,70	1,71	1,73	1,74	1,76
30°	1,78	1,87	1,96	2,06	2,17	2,29	2,43	2,58	2,75	2,94
40°	3,15	3,38	3,65	3,96	4,31	4,72	5,23	5,81	6,52	7,39
50°	8,42	9,74	11,43	13,58	16,58	20,89	27,33	38,28	60,84	126,07
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,30 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,54	1,55	1,56	1,58	1,59	1,61	1,61	1,61	1,62	1,62
20°	1,63	1,64	1,65	1,66	1,67	1,68	1,69	1,71	1,73	1,74
30°	1,76	1,85	1,94	2,04	2,15	2,26	2,40	2,55	2,71	2,89
40°	3,10	3,33	3,59	3,89	4,23	4,63	5,13	5,70	6,39	7,24
50°	8,24	9,54	11,19	13,29	16,23	20,43	26,63	37,42	59,46	123,16
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,40 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,53	1,54	1,55	1,56	1,58	1,59	1,59	1,59	1,60	1,60
20°	1,61	1,61	1,62	1,63	1,64	1,65	1,66	1,68	1,69	1,71
30°	1,72	1,80	1,89	1,98	2,09	2,20	2,33	2,47	2,62	2,80
40°	3,00	3,21	3,46	3,75	4,07	4,45	4,92	5,47	6,13	6,94
50°	7,90	9,13	10,71	12,71	15,51	19,51	25,42	35,70	56,69	117,35
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,55 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,50	1,51	1,53	1,54	1,55	1,57	1,57	1,57	1,57	1,57
20°	1,57	1,58	1,58	1,59	1,60	1,60	1,61	1,62	1,64	1,65
30°	1,66	1,74	1,82	1,91	2,00	2,11	2,23	2,36	2,50	2,66
40°	2,84	3,04	3,27	3,54	3,83	4,18	4,62	5,13	5,74	6,49
50°	7,38	8,53	9,98	11,84	14,44	18,14	23,61	33,12	52,54	108,64
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 4.1

SOLON Black 280/10 and SOLON Black 300/10 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 0,50 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,43	1,44	1,45	1,47	1,48	1,49	1,50	1,52	1,53	1,54
20°	1,56	1,57	1,59	1,61	1,63	1,65	1,67	1,70	1,72	1,75
30°	1,78	1,88	1,98	2,10	2,22	2,36	2,52	2,69	2,88	3,10
40°	3,34	3,61	3,93	4,28	4,69	5,17	5,74	6,40	7,21	8,19
50°	9,37	10,87	12,80	15,26	18,70	23,63	30,91	43,59	69,51	144,50
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,65 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,34	1,35	1,36	1,37	1,38	1,40	1,40	1,41	1,42	1,43
20°	1,45	1,46	1,47	1,49	1,50	1,52	1,54	1,56	1,58	1,61
30°	1,63	1,72	1,81	1,91	2,03	2,15	2,29	2,44	2,61	2,80
40°	3,02	3,25	3,53	3,85	4,21	4,63	5,14	5,73	6,45	7,32
50°	8,36	9,70	11,41	13,60	16,65	21,02	27,48	38,74	61,73	128,24
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,75 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,28	1,29	1,30	1,31	1,32	1,33	1,34	1,35	1,35	1,36
20°	1,37	1,38	1,39	1,41	1,42	1,44	1,45	1,47	1,49	1,51
30°	1,53	1,61	1,70	1,79	1,89	2,00	2,13	2,27	2,42	2,60
40°	2,80	3,02	3,27	3,56	3,88	4,27	4,74	5,28	5,94	6,74
50°	7,69	8,92	10,49	12,49	15,28	19,29	25,20	35,50	56,54	117,41
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,80 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,25	1,26	1,27	1,28	1,29	1,30	1,31	1,31	1,32	1,33
20°	1,33	1,34	1,36	1,37	1,38	1,39	1,41	1,43	1,44	1,46
30°	1,48	1,56	1,64	1,73	1,83	1,93	2,05	2,19	2,33	2,50
40°	2,69	2,90	3,14	3,41	3,72	4,09	4,54	5,05	5,68	6,44
50°	7,36	8,53	10,02	11,93	14,60	18,42	24,06	33,88	53,95	111,99
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,85 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,22	1,23	1,24	1,25	1,26	1,27	1,27	1,28	1,28	1,29
20°	1,30	1,31	1,32	1,33	1,34	1,35	1,37	1,38	1,40	1,41
30°	1,43	1,50	1,58	1,67	1,76	1,86	1,98	2,10	2,24	2,40
40°	2,58	2,78	3,01	3,27	3,56	3,91	4,34	4,83	5,43	6,15
50°	7,02	8,14	9,56	11,38	13,91	17,55	22,92	32,26	51,36	106,57
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,90 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,19	1,19	1,20	1,21	1,22	1,24	1,24	1,24	1,25	1,25
20°	1,26	1,27	1,28	1,29	1,30	1,31	1,32	1,34	1,35	1,37
30°	1,38	1,45	1,52	1,60	1,69	1,79	1,90	2,02	2,15	2,30
40°	2,47	2,66	2,88	3,12	3,40	3,73	4,13	4,60	5,17	5,86
50°	6,69	7,74	9,10	10,82	13,23	16,68	21,77	30,64	48,76	101,15
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 0,95 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,16	1,16	1,17	1,18	1,19	1,20	1,21	1,21	1,21	1,22
20°	1,22	1,23	1,24	1,25	1,26	1,27	1,28	1,29	1,30	1,32
30°	1,33	1,40	1,47	1,54	1,63	1,72	1,82	1,94	2,06	2,20
40°	2,36	2,54	2,74	2,98	3,24	3,55	3,93	4,38	4,92	5,57
50°	6,35	7,35	8,63	10,27	12,55	15,81	20,63	29,03	46,17	95,74
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,00 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,12	1,13	1,14	1,15	1,16	1,17	1,17	1,18	1,18	1,18
20°	1,19	1,19	1,20	1,21	1,21	1,22	1,23	1,24	1,26	1,27
30°	1,28	1,34	1,41	1,48	1,56	1,65	1,74	1,85	1,97	2,10
40°	2,25	2,42	2,61	2,83	3,08	3,37	3,73	4,15	4,66	5,28
50°	6,02	6,96	8,17	9,71	11,86	14,94	19,49	27,41	43,58	90,32
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 7 Sheet 4.2

SOLON Black 280/10 and SOLON Black 300/10 (Vertical Assembly / Flat Roof)

Allowable snow loads on the ground $s_{k,allow}$ in kN/m^2 according to DIN 1055-5 (Version 07.2005) depending on the pitch of the module and the speed pressure q in kN/m^2

Maximum load capacity - Optimum support and attachment area

Speed pressure $q = 1,05 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,09	1,10	1,11	1,12	1,13	1,14	1,14	1,14	1,14	1,15
20°	1,15	1,16	1,16	1,17	1,17	1,18	1,19	1,20	1,21	1,22
30°	1,23	1,29	1,35	1,42	1,50	1,58	1,67	1,77	1,88	2,00
40°	2,15	2,30	2,48	2,69	2,92	3,19	3,53	3,92	4,40	4,99
50°	5,68	6,57	7,71	9,16	11,18	14,08	18,35	25,79	40,98	84,90
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,10 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,06	1,07	1,08	1,09	1,10	1,11	1,11	1,11	1,11	1,11
20°	1,11	1,12	1,12	1,13	1,13	1,14	1,15	1,15	1,16	1,17
30°	1,18	1,24	1,29	1,36	1,43	1,50	1,59	1,68	1,79	1,91
40°	2,04	2,18	2,35	2,54	2,76	3,01	3,33	3,70	4,15	4,69
50°	5,34	6,18	7,24	8,60	10,50	13,21	17,21	24,17	38,39	79,48
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,15 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,03	1,04	1,05	1,06	1,07	1,08	1,07	1,07	1,07	1,08
20°	1,08	1,08	1,08	1,09	1,09	1,10	1,10	1,11	1,12	1,12
30°	1,13	1,18	1,24	1,30	1,36	1,43	1,51	1,60	1,70	1,81
40°	1,93	2,06	2,22	2,40	2,59	2,83	3,13	3,47	3,89	4,40
50°	5,01	5,79	6,78	8,05	9,81	12,34	16,07	22,55	35,79	74,06
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,20 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1,00	1,01	1,02	1,02	1,03	1,04	1,04	1,04	1,04	1,04
20°	1,04	1,04	1,04	1,05	1,05	1,05	1,06	1,06	1,07	1,08
30°	1,08	1,13	1,18	1,23	1,30	1,36	1,43	1,52	1,60	1,71
40°	1,82	1,94	2,09	2,25	2,43	2,65	2,93	3,25	3,64	4,11
50°	4,67	5,40	6,32	7,49	9,13	11,47	14,92	20,93	33,20	68,65
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure $q = 1,25 \text{ kN/m}^2$

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,97	0,98	0,98	0,99	1,00	1,01	1,01	1,01	1,01	1,00
20°	1,00	1,00	1,00	1,01	1,01	1,01	1,01	1,02	1,02	1,03
30°	1,03	1,08	1,12	1,17	1,23	1,29	1,36	1,43	1,51	1,61
40°	1,71	1,82	1,96	2,11	2,27	2,47	2,73	3,02	3,38	3,82
50°	4,34	5,00	5,85	6,94	8,44	10,60	13,78	19,32	30,61	63,23
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure q = 1,30 kN/m²

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,94	0,95	0,95	0,96	0,97	0,98	0,98	0,97	0,97	0,97
20°	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,98	0,98
30°	0,98	1,02	1,06	1,11	1,16	1,22	1,28	1,35	1,42	1,51
40°	1,60	1,71	1,83	1,96	2,11	2,29	2,53	2,80	3,13	3,53
50°	4,00	4,61	5,39	6,38	7,76	9,73	12,64	17,70	28,01	57,81
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure q = 1,40 kN/m²

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,88	0,88	0,89	0,90	0,91	0,92	0,91	0,91	0,90	0,90
20°	0,89	0,89	0,89	0,89	0,88	0,88	0,88	0,88	0,88	0,88
30°	0,88	0,92	0,95	0,99	1,03	1,07	1,13	1,18	1,24	1,31
40°	1,38	1,47	1,56	1,67	1,79	1,93	2,12	2,35	2,62	2,94
50°	3,33	3,83	4,46	5,27	6,39	8,00	10,36	14,46	22,83	46,97
60°	No calculative consideration of the snow load, usable in all snow load zones.									

Speed pressure q = 1,55kN/m²

β	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	0,78	0,79	0,80	0,80	0,81	0,82	0,81	0,80	0,80	0,79
20°	0,78	0,78	0,77	0,77	0,76	0,75	0,75	0,75	0,74	0,74
30°	0,73	0,76	0,78	0,80	0,83	0,86	0,89	0,93	0,97	1,01
40°	1,06	1,11	1,17	1,23	1,31	1,39	1,52	1,67	1,85	2,07
50°	2,33	2,66	3,07	3,61	4,34	5,39	6,93	9,61	15,04	30,72
60°	No calculative consideration of the snow load, usable in all snow load zones.									

SOLON Black 280/10 is structurally identical with SOLON Black 300/10.

Annex 8 Instructions for Usage – Examples

Example 1:

Construction site: Regensburg, ground elevation above sea level: 345 m
 Building details: Inclined roof (pitched roof), roof pitch $\alpha = 20^\circ$, height of the building 22 m
 System data: On-roof assembly system, module pitch $\beta = 20^\circ = \alpha$
 Vertical assembly of the modules, maximum support and attachment area.

Module: SOLON Blue 220/07, SOLON P220/6+/07

Verification of the planned assembly variant

1. Determination of the load data to be considered

Snow load according to DIN 1055 Part 5

Snow load zone 1, from Annex 1 Assembly Instructions

Ground elevation of the building site above sea level (m)	Snow load zone s_k (kN/m ²)				
	1	1a	2	2a	3
<200	0.65	0.81	0.85	1.06	1.10
300	0.65	0.81	0.89	1.11	1.29
400	0.65	0.81	1.21	1.51	1.78

Partial result: Snow load on the ground $s_k = 0.65$ kN/m²
 (ground elevation above sea level =345m, therefore in the table at 400m)

Wind load according to DIN 1055 Part 4

Wind zone 1 and building height above 18 m and up to 25 m, from Annex 2 Assembly Instructions

Wind zone and location of site		Speed pressure q in kN/m ² for building heights h within the limits of		
		up to 10 m	above 10 m up to 18 m	above 18 m up to 25 m
1	inland	0.50	0.65	0.75
2	inland	0.65	0.80	0.90
	Baltic coast/islands Sea	0.85	1.00	1.10

Partial result: Speed pressure $q = 0.75$ kN/m²

2. Determination of the allowable snow load on the ground s_{kallow} in kN/m²
Annex 3, Sheet 1.1 Assembly Instructions

Speed pressure $q = 0.75$ kN/m²

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.41	1.42	1.43	1.44	1.45	1.47	1.47	1.48	1.49	1.50
20°	1.51	1.53	1.54	1.55	1.57	1.59	1.61	1.63	1.65	1.67
30°	1.70	1.79	1.88	1.99	2.10	2.23	2.37	2.53	2.70	2.90
40°	3.12	3.36	3.65	3.97	4.34	4.77	5.29	5.90	6.64	7.53

Partial result: $s_{kallow} = 1.51$ kN/m²

3. Verification of the requirement $s_{kallow} \geq s_k$

Result: $s_{kallow} = 1.51$ kN/m² > $s_k = 0.65$ kN/m² The modules can be installed as planned!

Example 2:

Construction site: Rostock, ground elevation above sea level: 13 m
 Building details: Pitched roof, roof pitch $\alpha = 20^\circ$, building height 19 m
 System data: On-roof assembly system, module pitch $\beta = 20^\circ = \alpha$
 Vertical assembly of the modules, maximum support and attachment area.
 (insertion system)

Module: SOLON Blue 220/07, SOLON P220/6+/07

Verification of the planned assembly variant

1. Determination of the load data to be considered

Snow loads according to DIN 1055 Part 5

Snow load zone 3, from Annex 1 Assembly Instructions

Ground elevation of the building site above sea level (m)	Snow load zone s_x (kN/m ²)				
	1	1a	2	2a	3
<200	0.65	0.81	0.85	1.06	1.10

Partial result: **Snow load on the ground $s_x = 1.10$ kN/m²**

Wind loads according to DIN 1055 Part 4

Wind zone 3 and building height 19 m, from Annex 2 Assembly Instructions

Wind zone and location of site		Speed pressure q in kN/m ² for building heights h within the limits of		
		up to 10 m	above 10 m up to 18 m	above 18 m up to 25 m
1	inland	0.50	0.65	0.75
2	inland	0.65	0.80	0.90
	Coast / islands Baltic Sea	0.85	1.00	1.10
3	inland	0.80	0.95	1.10
	Baltic Sea coast/islands	1.05	1.20	1.30

Partial result: **Speed pressure q = 1.30 kN/m²**

2. Determination of the allowable snow load on the ground s_{kallow} in kN/m²
Annex 3, Sheet 1.1 Assembly Instructions

Speed pressure $q=1.30$ kN/m²

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.32	1.33	1.34	1.35	1.37	1.38	1.38	1.38	1.38	1.39
20°	1.39	1.39	1.40	1.41	1.41	1.42	1.43	1.44	1.45	1.47
30°	1.48	1.55	1.62	1.70	1.79	1.88	1.99	2.11	2.24	2.39

Partial result: $s_{kallow} = 1.39$ kN/m²

3. Verification of the requirement $s_{kallow} \geq s_k$

Result: $s_{kallow} = 1.39$ kN/m² > $s_k = 1.10$ kN/m² The modules can be installed as planned!

Example 3:

Construction site: Garmisch Partenkirchen, ground elevation above sea level: 710 m
 Building details: Inclined roof (pitched roof), roof pitch $\alpha = 44^\circ$, height of the building 15 m
 System data: On-roof assembly system, module pitch $\beta = 44^\circ = \alpha$
 Vertical assembly of the modules, maximum support and attachment area.
 (insertion system)

Module: SOLON Black 230/07, SOLON M230/6+/07

a) Verification of the planned assembly variant

1. Determination of the load data to be considered

Snow loads according to DIN 1055 Part 5

Snow load zone 3, from Annex 1 Assembly Instructions

Ground elevation of the building site above sea level (m)	Snow load zone s_k (kN/m ²)				
	1	1a	2	2a	3
.....	0.65	0.81	0.85	1.06	1.10
700	1.30	1.59	2.58	3.24	3.86
800	1.59	1.99	3.17	3.97	4.76

Partial result: **Snow load on the ground $s_k = 4.76$ kN/m²**

Wind loads according to DIN 1055 Part 4

Wind zone 1 and building height above 10 m up to 18 m, from Annex 2 Assembly Instructions

Wind zone and location of site	Speed pressure q in kN/m ² for building heights h within the limits of		
	up to 10 m	above 10 m up to 18 m	above 18 m up to 25 m
1 inland	0.50	0.65	0.75

Partial result: **Speed pressure $q = 0.65$ kN/m²**

2. Determination of the allowable snow load on the ground s_{kallow} in kN/m²

Annex 3, Sheet 1.1 Assembly Instructions

Speed pressure $q = 0.65$ kN/m²

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.42	1.43	1.44	1.46	1.47	1.48	1.49	1.50	1.51	1.52
20°	1.54	1.55	1.57	1.58	1.60	1.62	1.64	1.66	1.69	1.71
30°	1.74	1.83	1.93	2.04	2.16	2.29	2.44	2.60	2.78	2.99
40°	3.22	3.48	3.77	4.11	4.50	4.95	5.50	6.12	6.90	7.83

Partial result: **$s_{kallow} = 4.50$ kN/m²**

3. Verification of the requirement $s_{kallow} \geq s_k$

Partial result: $s_{kallow} = 4.50 \text{ kN/m}^2 < s_k = 4.76 \text{ kN/m}^2$

The insertion system is not suitable as assembly variant for the planned modules SOLON M230/6+/07 (verification using the simplified procedure). Alternatively, another assembly variant, thus optimal support of the modules, could be chosen (continue Item b) or the extensive calculation procedure (Item c) used.

b) Assembly variant: optimum support and attachment

4. Determination of the allowable snow load on the ground s_{kallow} in kN/m^2

Annex 3, Sheet 3.1 Assembly Instructions with a speed pressure of $q = 0.65 \text{ kN/m}^2$ with altered assembly variant, that is support and attachment in the optimal area

Speed pressure $q = 0.65 \text{ kN/m}^2$

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.71	1.72	1.73	1.75	1.76	1.78	1.79	1.80	1.82	1.83
20°	1.85	1.87	1.89	1.91	1.93	1.95	1.98	2.01	2.04	2.07
30°	2.11	2.22	2.34	2.47	2.62	2.78	2.96	3.17	3.39	3.64
40°	3.92	4.24	4.60	5.02	5.49	6.05	6.72	7.49	8.43	9.57

Partial result: $s_{kallow} = 5.49 \text{ kN/m}^2$

5. Verification of the requirement $s_{kallow} \geq s_k$

Result: $s_{kallow} = 5.49 \text{ kN/m}^2 < s_k = 4.76 \text{ kN/m}^2$

SOLON modules M230/6+/07 can therefore be installed, without the need for special confirmation, using the altered assembly variant, that is with the optimum support according to the assembly instructions. Alternatively, the SOLON modules P180/6+ or P130/6+ could be used with the insertion system too.

c) Assembly variant: Verification using the extensive calculation procedure

The extensive calculation has proven that the SOLON modules can also be used with the insertion system. At a ground elevation above sea level of 710 m, the **calculated snow load on the ground is $s_k = 3.95 \text{ kN/m}^2$** instead of the snow load on the ground of 4.76 kN/m^2 that has been specified by the table for 800 m (according to the simplified procedure, the snow load on the ground had to be selected at 800).

Result: $s_{kallow} = 4.50 \text{ kN/m}^2 < s_k = 3.95 \text{ kN/m}^2$

As planned, the modules can also be installed using the insertion system!

Example 4:

Construction site: Hüfingen (near Donau Eschingen), ground elevation above sea level: 550 m
 Building details: Inclined roof (pitched roof), roof pitch $\alpha = 30^\circ$, height of the building 15 m
 System data: On-roof assembly system, module pitch $\beta = 30^\circ = \alpha$
 Vertical assembly of the modules, maximum support and attachment area.

Module: SOLON Blue 220/07, SOLON P220/6+/07

Verification of the planned assembly variant

1. Determination of the load data to be considered

Snow loads according to DIN 1055 Part 5

Snow load zone 1, from Annex 1 Assembly Instructions

Ground elevation of the building site above sea level (m)	Snow load zone s_k (kN/m ²)				
	1	1a	2	2a	3
<200	0.65	0.81	0.85	1.06	1.10
300	0.65	0.81	0.89	1.11	1.29
400	0.65	0.81	1.21	1.51	1.78
500	0.84	1.05	1.60	2.00	2.38
600	1.05	1.30	2.06	2.58	3.08

Partial result: **Snow load on the ground $s_k = 1.05$ kN/m²**

Determination of the load data wind loads according to DIN 1055 Part 4

Wind zone 2 and building height 15 m, from Annex 2 Assembly Instructions:

Wind zone and location of site		Speed pressure q in kN/m ² for building heights h within the limits of		
		up to 10 m	above 10 m up to 18 m	above 18 m up to 25 m
1	inland	0.50	0.65	0.75
2	inland	0.65	0.80	0.90
	Baltic coast/islands Sea	0.85	1.00	1.10

Partial result: **Speed pressure q = 0.80 kN/m²**

2. Determination of the allowable snow load on the ground s_{kallow} in kN/m^2
Annex 3, Sheet 3.1

With speed pressure $q = 0.0 \text{ kN/m}^2$ (from table $q = 0.85 \text{ kN/m}^2$)

$\alpha = \beta$	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°
10°	1.39	1.40	1.41	1.42	1.44	1.45	1.46	1.46	1.47	1.48
20°	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.59	1.62	1.64
30°	1.66	1.74	1.83	1.93	2.05	2.17	2.30	2.45	2.62	2.80

Partial result: $s_{kallow} = 1.66 \text{ kN/m}^2$

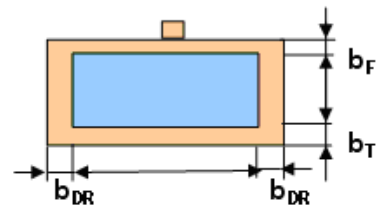
3. Verification of the requirement $s_{kallow} \geq s_k$

Result: $s_{kallow} = 1.66 \text{ kN/m}^2 > s_k = 1.05 \text{ kN/m}^2$ The modules can be installed as planned!

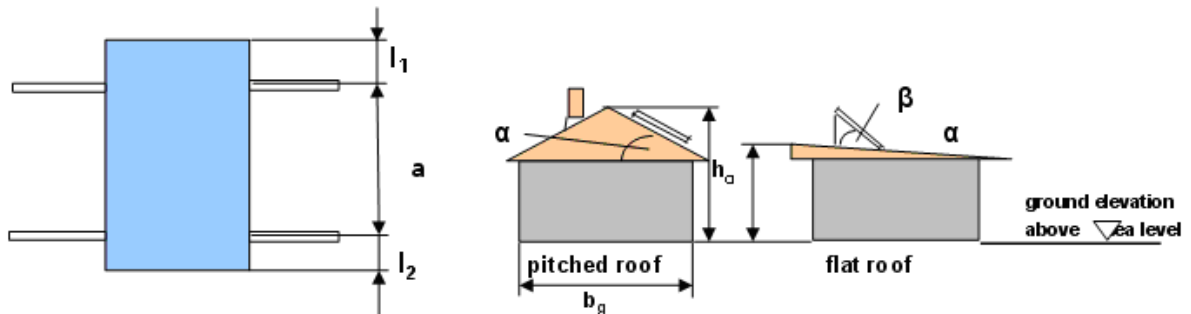
CHECKLIST - TECHNICAL DIMENSIONING GUIDE FOR THE ASSEMBLY OF SOLON MODULES

PROJECT		
ZIP/CITY		
ADDRESS		
CONTACT PERSON		
TELEPHONE		
FAX		

MODULE TYPE		
SERIAL-NO. OF ONE MODULE		
ROOF TYPE	PITCHED ROOF <input type="checkbox"/>	FLAT ROOF <input type="checkbox"/>
ROOF / MODULE PITCH [α / β]	$\alpha =$ °	$\beta =$ °
BUILDING HEIGHT [h_g] / -WIDTH [b_g]	$h_g =$ m	$b_g =$ m
GROUND ELEVATION	$=$ m ab. MS	
SNOW LOAD ZONE (DIN 1055-5) ¹⁾		
WIND ZONE (DIN 1055-4) ¹⁾		
SITE LOCATION (DIN 1055-4) ¹⁾		
ARRANGEMENT OF MODULES	VERTICAL <input type="checkbox"/>	HORIZONTAL <input type="checkbox"/>
SLIP PROTECTION	YES <input type="checkbox"/>	NO <input type="checkbox"/>
SUPPORT POINT - MODULE EDGE	$l_1 =$ mm	$l_2 =$ mm
RAIL DISTANCE [a]	$a =$ mm	
DIST. TO EDGE OF ROOF [b_{DR}]	$b_{DR} =$ mm	
DISTANCE TO RIDGE [b_F]	$b_F =$ mm	
DISTANCE TO EAVES [b_T]	$b_T =$ mm	



TYPE OF ROOFING	
RAFTER DISTANCE [s_{sp}]	$s_{sp} =$ mm



If required, please fill in completely and send to a structural engineer for processing (recommendation by SOLON possible). The structural load capacity of the roof must be checked by the building owner and verified separately.

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