5.13
DT-E

TECHNICAL AND OPERATING DOCUMENTATION

INSTRUCTIONS,
OPERATION AND SAFE USE

(original instructions)

5. Steel and aluminum structural components and assemblies
5.13 Pergola SB350

PRODUCT NAME:

ALUMINUM CONSTRUCTION
PERGOLA SB350

THE PRODUCT MANUFACTURER'S DESIGNATION:

- Manufacturer Name:
  SELT Sp. z o. o.
  KRS 0000589791, share capital: PLN 64,000,000
  NIP: 7543103311, REGON: 363154414, BDO No. 000009177

- Headquarters of the manufacturer:
  45- 449 Opole, 23A Wschodnia St.

- Contact details:
  Tel: +48 534 598 065

- Website
  www.selt.com

- Web mail address:
  kontakt@selt.com

PRODUCT SAFETY MARKING:

The product meets CE safety requirements.

THIS TECHNICAL AND OPERATIONAL DOCUMENTATION:

- is valid as of: September 25, 2023.

- is valid for the product versions marked above.

TABLE OF CONTENTS

1 INTRODUCTION

1.1 PRODUCT SAFETY TIPS.

The product was made in accordance with the latest technical knowledge in the field of design and manufacturing technology
and meets safety requirements in accordance with the following standards.

Lp.	Subject	European Legal Basis	Polish Legal Basis
1	Construction of steel and aluminum structures Part 1: Principles for assessing the conformity of structural elements	EN 1090-1:2009 +A1:2011	PN-EN 1090-1+A1:2012
2	Blinds including exterior slat blinds. Operational requirements including safety	EN 13659:2015	PN-EN 13659:2015
3	Construction Products (CPR)	Regulation 305/2011 of the European Parliament and of the Council	Act of 16.04.2004 on construction products (i.e. Journal of Laws 2020, item 215), as amended
4	Essential requirements for machinery	Directive 2006/42/EC of the European Parliament and of the Council	Regulation of the Minister of Economy of 21.10.2008 on essential requirements for machines (Journal of Laws 2008 No. 199 item 1228), as amended.
5	Low Voltage Directive (LVD)	Directive 2014/35/EU of the European Parliament and of the Council	Regulation of the Minister of Development of 2.06.2016 on requirements for electrical equipment (i.e. Journal of Laws 2016 item 806) Act of 13.06.2019 on the system of conformity assessment and market surveillance (Journal of Laws 2019 item 544), as amended
6	Electromagnetic compatibility (EMC) directive	Directive 2014/30/EU of the European Parliament and of the Council	Act of 13.04.2007 on electromagnetic compatibility (i.e. Journal of Laws 2019 item 2388) Act of 13.06.2019 on the system of conformity assessment and market surveillance (Journal of Laws 2019 item 544), as amended

Related documents: Declaration of Performance for compliance with EN 1090-1:2009 +A1:2011,
Declaration of Performance for compliance with EN 13659:2015 and instructions for installation, use of motors and control.

1.2 EXPLANATION OF SYMBOLS AND SIGNS

The following symbols (pictograms) indicate particularly important hazard and safety information.

Pictogram	Meaning of the pictogram	Information
	INFO	Read the instruction manual before using the product. Compliance with the operating instructions is a condition: - failure-free operation of the product, - use as intended, - to retain rights under the warranty, among other things. For the safety of people, keep the instructions.
	INFO	No harmful or dangerous consequences for people or objects.
	NOTE!	A situation that may cause damage to the product or requires action by the user. No danger to humans.

	DANGER!	This symbol denotes all safety information, the non-observance of which poses a danger to life or health of persons. Threat to health or life. Risk: danger of serious injury or death. Dangerous operation that may cause injury or damage to the product.
	WARNING!	Risk to health or life by electrocution.
	DANGER!	Danger of crushing hands.
	WARNING!	Danger of head injury.
	ENVIRONMENT	Marking of electrical or electronic equipment subject to collection at designated points.

1.3 TERMS AND DEFINITIONS

The terms and definitions used in this documentation mean:

Product (Goods): PERGOLA SB350
Pergola SB350 system is made of powder-coated aluminum profiles and stainless steel elements. The roof structure is made of movable aluminum blades. The blades have the ability to change the angle of inclination. The structure of the product is offered as standard in the color specified by the Manufacturer.
NOTE: the set includes: two longitudinal beams (drive and bearing), two cross beams (front and rear), gutters, posts, feet, a moving roof consisting of aluminum blades, a hidden linkage with pins, and a motor built inside the beam.

Movable roof:
It consists of blades attached to transverse beams with adjustable blade angle. The blades are moved using a mechanism driven by an electric motor.

Blade: part of the product, made of extruded aluminum profiles with an aesthetic appearance. The shape of the tongue allows rainwater to be drained from the roof surface within the limits of the design assumptions (cf. Section 2.2), and protection from sunlight and snow load up to a limited value (cf. Section 2.2).

PERFORMANCE VERSIONS:

Freestanding - A self-supporting structure containing a single movable roof module supported by four corner posts. All have a drainage function.

1.4 SUBJECT, PURPOSE AND CONTENT OF THE DOCUMENTATION

The subject of this documentation are products manufactured by **SELT Ltd.**
The documentation applies to all types of **PERGOLA SB350.**

Instructions for operation and safe use together with the motor manual, should be given to the end user.

GRAPHIC INSTALLATION INSTRUCTIONS ARE A SEPARATE DOCUMENT.
It is necessary in order to safely and correctly assemble the product.

IMPORTANT SAFETY INSTRUCTIONS
WARNING - FOLLOWING THESE INSTRUCTIONS IS IMPORTANT
FOR THE SAFETY OF PEOPLE
KEEP THIS INSTRUCTION

Documentation is part of the delivery of the product and should be kept near the product at all times.

Documentation includes:

- important recommendations for the use and maintenance of the product,
- important recommendations for transportation and storage,
- Guidelines, the observance of which will allow the operation of the product.

SELT Sp. z o.o. will not be liable for damages resulting from failure to follow the recommendations contained in this documentation.
In order to further improve the product, SELT Sp. z o.o. reserves the right to make such changes as, while maintaining the essential technical parameters, are deemed advisable to increase, the quality of the product's service and safety of use.

2 PRODUCT TECHNICAL INFORMATION

The technical specification of the product is available after logging on to the website www.selt.com

2.1 TECHNICAL PAREMETERS:

Pergola SB350 - freestanding

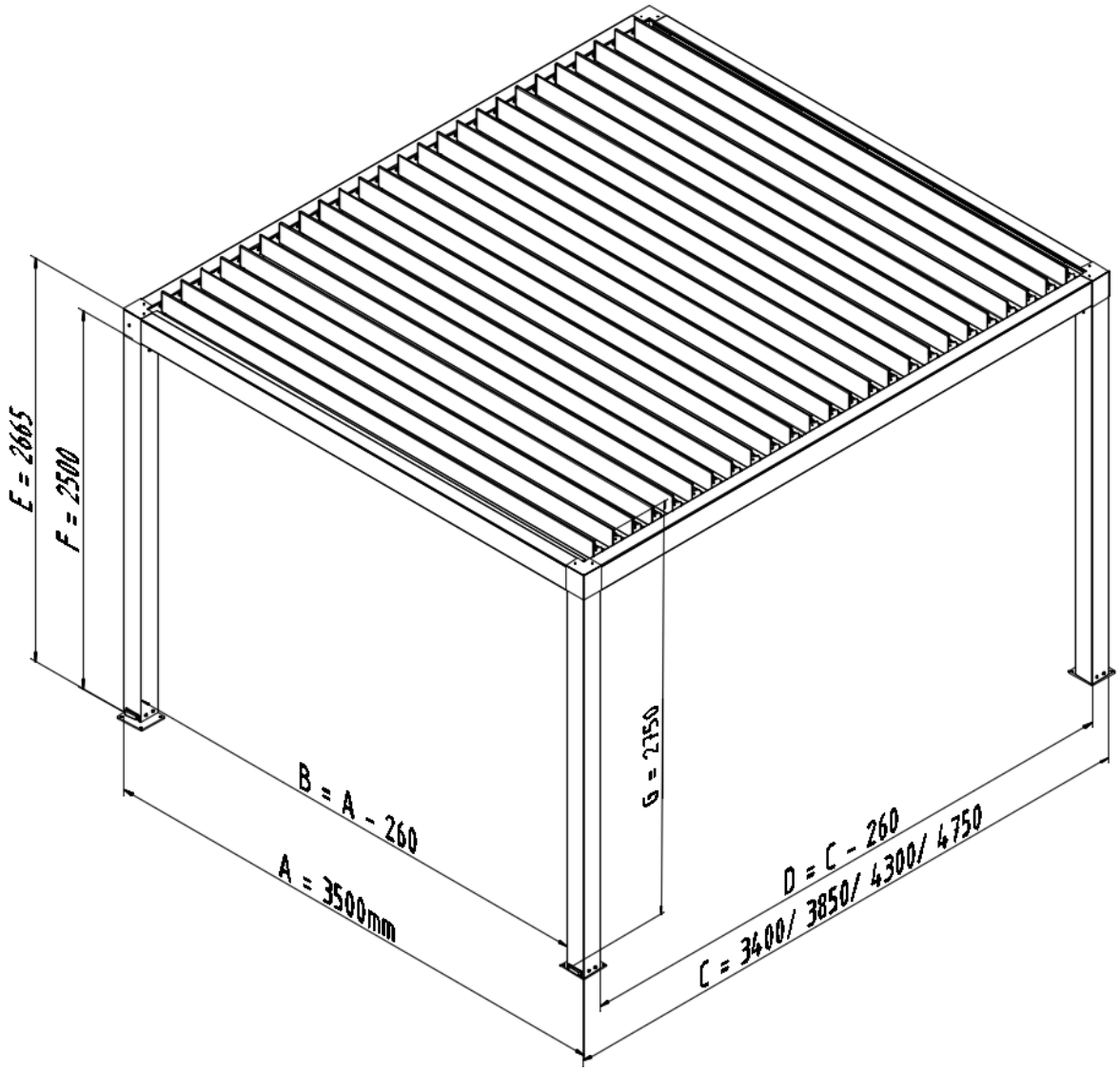


Fig. 1 SB350 freestanding pergola Overall dimensions: **A** - fixed width, **C** - length (4 dimensions available),**E -** frame height (2665 mm), **F** - frame clearance, **G** - maximum height of the position of the mechanism for changing the angle of the blade (~2750 mm).

System module dimensions:	Width*	Overhang*.	Height*.	clear height*
Load-bearing structure	3500 mm (fixed)	3400 or 3850 or 4300 or 4750 mm	up to 2750 mm** (**-status of raised blades).	2500mm (fixed)
Axial spacing of roof blades	150 mm			
The difference in the attachment of the pen ends (transverse slope - pen axis)	No			
Scope of use / operation				
Ambient temperature (min/max)	+5 to +40°C (opening/closing the movable roof)			
Air humidity (max)	90% non-condensing (opening/closing the movable roof)			
Drives (drive types):	Linear motor. The motor can be activated via an external radio control panel.			
Connection to the electrical system	power cord with a length of about 4 m (after installation, the cable should be properly secured).			
Drive electric motor with parameters:				
Motor model	24V DC motor			
- supply voltage	24 V DC			
- power	43 W			
- current consumption	1,8 A			
- degree of protection	IP 67			
- continuous operation time	Up to 2 min (depending on ambient temperature)			
- extension, axial force	max 250 mm, extension force 600N			
- ejection velocity	approx. 10.5 mm/sec.			
- operating temperature (min/max)	-20°C to +60°C			
Assembly:				
Application	External			
On-site installation	For load-bearing substrate			
Drainage:	For all 4 posts with the possibility of blocking in each gutter one drain to the post (which reduces the drainage capacity)			

*-Tolerances on external dimensions are +/-10 mm.

Detailed motor performance data is available on the motor manufacturers' websites and on the website:

www.selt.com→ OUR OFFER → AUTOMATION

2.2 PRODUCT CHARACTERISTICS

The products manufactured by SELT Sp. z o.o. have appropriate technical and performance parameters.

List of product types:

- freestanding,
- Mounted outside the building, actuated by an electromechanical drive connected with the control system,

They are characterized by the following properties:

- The roof (blades) electrically opened, designed to protect from the sun as well as rain (according to the parameters of the product, as well as its location).
- Permissible use of the product outdoors in accordance with the parameters of the product.
- The location, finish, installation method and seals used, as well as intense weather conditions, including heavy rain and/or snow, have a major impact on the level of rain protection the product provides.
- Movable roof blades allow adjustment of sunlight access.
- Hidden motor and drive mechanism.
- The upper chamber of the beams closed with a revision allows the distribution of wiring.
- The application and use of the product should take place within the limits of the size limited by the third wind class according to EN 13659) and/or the maximum snow load.
- Activation of blade rotation during snowfall, in icy conditions or when snow or ice is deposited on the roof, as well as use outside the temperature ranges specified in the instructions, is not permitted and may lead to damage to the product and even personal injury or death.
- It does not emit toxic substances during its lifetime.
- Noise emissions from an electromechanically driven product (related to the working movement of moving parts, produced by the electric motor, mechanism and pens during operation) are not considered a significant hazard and are a matter of comfort.
- The product's motor has an IP 67 enclosure protection rating.
- The design of the product and the drive allows the blades to be stopped at a selected angle in their working area.
- The rotary motion of the pens, can be activated by a manual switch or by remote control.
- Variations in the angle of closure of the movable roof blades can be about 2° and are a natural feature of the system due to tolerances in the manufacture of the components and their adjustment during installation.
- Moving parts guards are designed and manufactured to ensure operator safety, assuming they are operated properly.
- Steam may condense on the product and especially the bottom part of the product and water may run off or drip.
- Waterproof, aesthetically pleasing drainage through an integrated gutter and poles with drains.
- Drainage occurs to two gutters and all posts, possible blocking of 1 drain per gutter.
- Maximum drainage capacity drains rain up to 0.05 l/s/m^2 with a maximum duration of 5.3 min (with 4 drainage holes).
- Permitted use for protection against snowfall (up to a level of 30 kg/m^2)-as an even layer of uniform height.

3 TRANSPORT AND STORAGE OF GOODS

3.1 COMPLETENESS AND QUALITY CONDITION OF THE DELIVERY

The goods of SELT Sp. z o.o. are in accordance with the technology of their production. In case of any objections to the product or damage to the packaging of the product, the objections or comments should be reported to the driver / warehouseman / assembly brigade and marked on the WZ document under pain of loss of claims on this account, and a protocol describing these objections or comments should be drawn up with the participation of the driver.
At the time of acceptance, first of all, mechanical defects, scratches, cracks, etc., as well as quantitative objections must be reported, under penalty of being considered non-existent. Hidden defects must be reported in accordance with the terms of the warranty or guarantee.

3.2 GENERAL CONDITIONS FOR TRANSPORT AND STORAGE OF THE PRODUCT

List:

- The product is packed at the factory in a cardboard box, which protects it from damage during storage, during transport and during its movement to the place of final installation,
- Transport/storage products should be arranged according to the arrows on the product packaging,
- do not store products in more than 2 layers due to the possibility of crushing the packaging, which may result in permanent damage to the product,
- Do not load the product packaging with other objects,
- products placed on the means of transport should be protected against displacement and damage during transport (e.g., spacers, safety belts, etc.),
- during transport, products should be protected from rain or snow,
- storage areas should be dry, ventilated and protected from the harmful effects of the weather (sun, rain, etc.),
- if the weight of the product exceeds 25 kg its movement to the place of final assembly, must be carried out by at least two people (depending on the weight of the ordered product).

3.3 DESCRIPTIONS THAT OBLIGATORILY MUST BE PLACED ON THE PRODUCT PACKAGING.

Before installing and using the product, carefully read the technical and operating documentation available by logging on to http://www.selt.com/dte-pl

4 PRODUCT INSTALLATION

This chapter contains general requirements for the installation of the product.

Note: The graphic assembly instructions are a separate document necessary for the correct and safe assembly and operation of the product

Proper installation is a prerequisite for the proper functioning of the product.
SELT Ltd. recommends using qualified assemblers who will have the skills to properly install the product.

4.1 GENERAL REQUIREMENTS FOR SAFE INSTALLATION

- The rules of the art of construction must be observed,
- comply with applicable health and safety regulations, especially those concerning the safety of working with electrical equipment and working at heights,
- the product must be fixed mechanically; foams, adhesives or similar materials must be used in accordance with the recommendations of their manufacturers, taking into account the specifics of the product,
- the base to which the handles of the product will be attached should be a structure with appropriate parameters,
- Before installation, move all unnecessary objects, including electrical wires, out of the installation zone (check the course of the installation within the fixing points to exclude damage to them), as well as mark the installation site and use appropriate safeguards to protect people.

Information table for the substrate to which the substructure is to be mounted

The product should be mounted to a substrate with appropriate parameters or a substructure with appropriate parameters.
The aforementioned requirements for the substrate and substructure require the assessment of a specialist and are the responsibility of the investor and contractor.
Other installation methods than those suggested by SELT are possible, as long as the requirements of construction knowledge and safety are observed. In any case, this requires expertise and is done at the risk of the investor or contractor.
It is recommended to make arrangements in the above-mentioned area with an authorized designer.

4.2 REQUIREMENTS FOR SAFE INSTALLATION OF THE PRODUCT AT HEIGHT

The installation of the product, through the need to work at heights, is one of the particularly dangerous works, as it poses a particularly high risk of danger to the safety and health of people, especially falls from heights.

The obligation to ensure the development of a safety and health plan during installation is the responsibility of the installer (hereinafter Installer) or the party commissioning such work (hereinafter Investor).
The developer/installer should specify the specific health and safety requirements when performing work at height, and in particular provide:

- Direct supervision of their performance by persons designated for this purpose (e.g., works manager, foreman),
- appropriate safety measures, primarily fall protection equipment,
- Detailed instruction of employees performing work at heights.

Work at a height of more than 2 m, where the use of personal protective equipment against falls from height is required, must be performed, at least by 2 people.
Work at height should be organized and performed in a way that does not force workers to lean beyond the railing of the railing or the outline of the device on which they are standing. It is not allowed to stand on elements of the product.
The Installer/Installer shall ensure that only authorized and properly trained and informed persons have access to the sites of works at height. The Investor/Installer shall inform of the works at height being carried out and of the necessary safety measures to be observed during such works by persons who are or may be in the area where such works are being carried out or in the vicinity of such area.

4.3 PREPARATION FOR INSTALLATION

- Unpack the product and check that all the components necessary for its installation are present,
- Before installation, check that the substrate/substructure has sufficient load-bearing capacity for safe installation and operation.

Note: It is up to the Installer/Investor to purchase and select the screws, dowels and bolts that connect the system to the structure of the facility.

4.4 GENERAL GUIDELINES FOR THE INSTALLATION OF THE PRODUCT

- SB350 pergola is an open outdoor patio cover. The equipment under the pergola must be designed for outdoor use.
- 3 people are required to safely perform the assembly of the supporting frame.
- Improper installation or errors during installation can have serious consequences in the operation of the product.
- Before installation, check that the installation space is free of obstructions, including people and things, and ensure that the installation site and the adjacent area are properly marked and secured,
- anchoring elements for mounting the product to the substructure are not included, as they should be selected individually by the installer depending on the material to which they are to be attached (it is recommended to make arrangements with an authorized designer),
- The substrate/substructure must have load-bearing capacity and be capable of transferring the forces generated from anchoring the product and during its use,
- Selt shall not be liable for damage or loss caused by the use of anchoring elements that are too weak or by fixing in a substrate with insufficient load-bearing capacity,
- protect the product from dirt (e.g., mortar, installation foam, silicone) that can cause damage to the product,
- if it is necessary to use polyurethane foam, silicone or other agents, it is essential to follow the manufacturers' recommendations on the packaging

Improper installation can contribute to dangerous situations for the user.

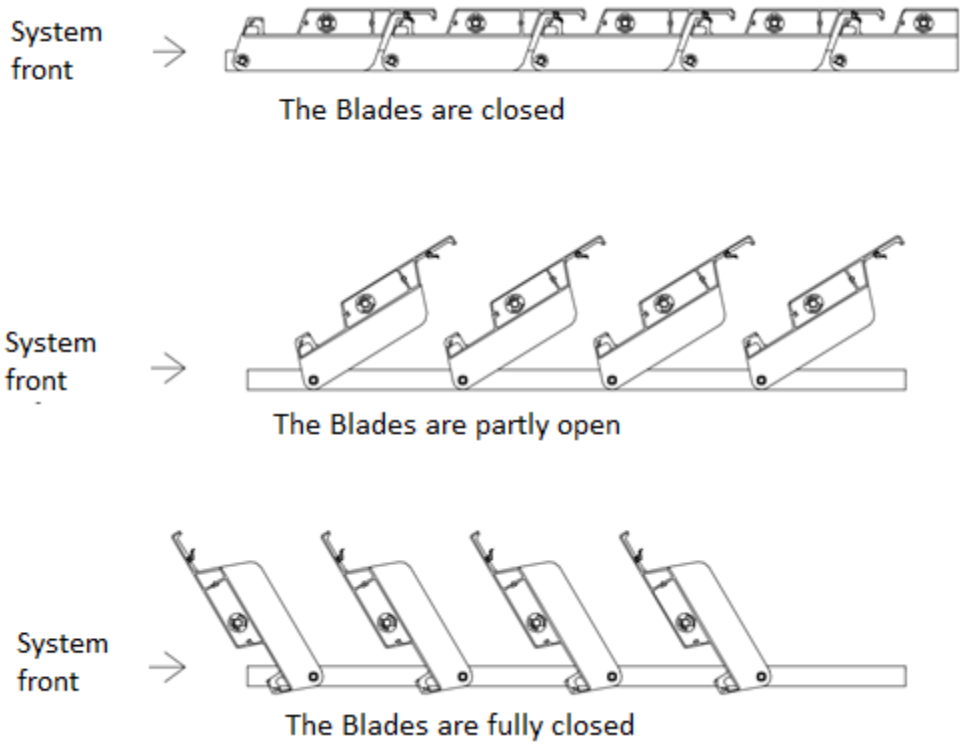
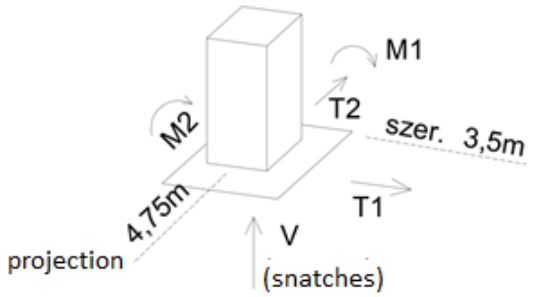


Fig. 2. Standard setting of blade opening direction in Pergola SB350

The drawings are for illustrative purposes and do not write off all product features, including those related to the use of gaskets.

4.5 GUIDELINES FOR FOUNDATIONS

For a free-standing pergola with a maximum size of 3.5x4.75 m and according to the location data (given under the table below), the maximum design reactions are*:

Reaction directions with a positive sign	V [kN].	T1 [kN].	T2 [kN].	M1 [kNm].	M2 [kNm].
	**PERGOLA SUPPORT 3.5x4.75 m**				
	-3.84 (press)	0	1,56	-0,08	1,56
	4.06 (snatches)	-0,83	1,35	-1,00	1,12
	-3,84	0,05	**1,58**	0,07	1,61
	-1,55	0,13	1,40	0,13	**1,81**
	-1,80	**-0,97**	0,55	**-1,31**	0,66

*Reactions were calculated for a pergola model with flow blocking (ϕ=1) for both mutually perpendicular directions. A reduction was applied for a load return period of t=10 years.

Location recommendations for SB400 pergolas:

- For the Polish territory - location in the first and third wind load zones up to 300 m above sea level (base wind speed $v_{b,0}$ =22 m/s) . For the second wind zone (coastal) and areas above 300 m above sea level in zones 1 and 3, a comparison of wind load to the recommended zones should be made
- location adopted for wind category III and IV areas (areas regularly covered with vegetation or buildings or with single obstacles, distant from each other at most a distance equal to their 20 heights - villages, suburban areas and permanent forests, as well as areas with at least 15% of the surface covered with buildings with an average height of more than 15 m - urban areas)
- It is not allowed to leave the roof blades open or the possibility of obscuring the walls when the wind exceeds wind class 3 according to EN 13659 (45 km/h =12.6 m/s=10.2 kg/m^2) as this risks damaging the supporting structure of the pergola.
- The possibility of loading the roof with snow up to 30 kg/m^2 as a uniform load (without snow bags and snowdrifts),
- In special cases:

- use of locations above ground level (i.e., more than 1.2 m in Zone III or more than 6.2 m in Zone IV),
- applications of wall development,
- When using taller poles,
- locations outside the indicated wind zones and/or above the specified height above sea level, an individual analysis should be carried out by a person with building qualifications.

The maximum diameter of holes in column feet is 13 mm. The maximum anchor size is M12. For anchoring in the ground, use M12 size anchors of grade 5.8 or A2 grade stainless steel anchors.

For anchoring feet in concrete min. C20/25 we recommend mechanical or chemical anchors.
Recommended anchors (mechanical):
- Fischer FAZ II 12/10 anchor (if no additional leveling subfloor is made under the footing),
- Fischer FAZ II 12/30 anchor (when performing additional leveling underfoot)

Recommended anchors (chemical):
- Fischer FIS A M12x120 class 5.8 anchor + FIS V Plus resin (if additional subflooring is performed, reduce the depth of anchor insertion).

Do not perform the foundation on non-bearing soils (non-construction embankments, humus, peat, silt, plasticized clay, soils with inclusions of organic parts, wood, rubble, etc.). - then we recommend consulting a geotechnical engineer.

Due to the use of rainwater runoff in columns with water outflow, it is important to carefully densify and elastically seal the area around the footings in the ground due to possible mechanical impacts caused from wind. For the location at ground level, it is necessary to ensure anchorage and support on a stable load-bearing substrate without layers subject to leaching, loosening or crushing (ballasts, thermal insulation).

The soils for the foundation may be friable, which means that in the spring period they may be subject to lifting/lifting. For them, frost zones have been defined below which the bottom of the foundation should be sunk so as not to expose it to unfavorable soil movement. These are mostly soils containing dusty particles (such as clay, silty clay, loam, clayey sand, loess).

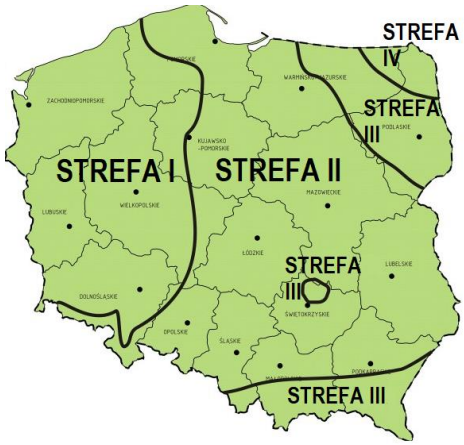


Fig. 4- Ground frost zones in Poland.

Frost depths in the zones marked next:

ZONE I - 0.8 m

ZONE II - 1.0 m

ZONE III - 1.2 m

ZONE IV - 1.4 m

Selt recommends making foundations of reinforced concrete of min. C20/25 with a minimum size of **35x35 cm** and a height of min. 100 cm.
The minimum depth in the ground is:
a) With non-friable soils min. 70 cm,
(b) for friable soils not less than the depth of the frost zones for Poland - defined as 80 or 100 or 120 or 140 cm - depending on the region of the country,
(c) alternatively, in the case of friable soils, it is permissible to reduce the depth of the bottom of the foundation to 70 cm below the ground, provided that the soil below is replaced to the frost depth with skim concrete C8/10 with a contour larger after 5 cm from the contour of the footing or with bedding compacted to grade I_D >0.67.
In addition:
- The soil at the bottom of the footing trench must not be loosened,
- during the execution of the footings, do not allow the bottom of the excavation to be flooded by precipitation or the ground to freeze (during the period of reduced temperatures),
- Construction of foundations may require building permits.

Recommended footing

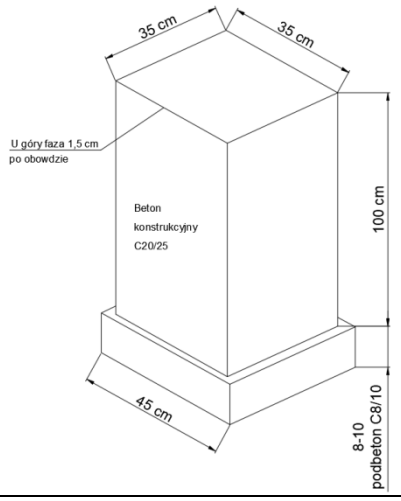
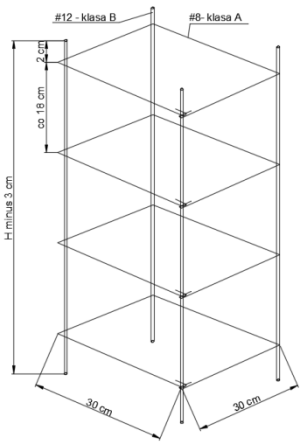
Gabarites	Reinforcement
	

Fig. 3 Shape and reinforcement of the foundation footing

If ballasts are used instead of foundations on stable ground, the required weight of ballast under the column is 340 kg.

5 PRODUCT HANDLING AND SAFETY

The product can only be used if there are no defects.

5.1 GENERAL HEALTH AND SAFETY REQUIREMENTS

- In order to ensure the proper functioning of the product, SELT Ltd. forbids making any design changes, failure to comply with the above condition relieves the manufacturer from liability for the product, from liability for any damage or loss, and the customer loses warranty or guarantee rights on it.
- During transportation, assembly and disassembly, as well as in the handling, care and maintenance of the product, it is necessary to comply with health and safety and environmental protection regulations.
- The product should be maintained and repaired only by persons with the appropriate authorizations and qualifications (trained).
- Persons entrusted with activities related to its day-to-day use, hygiene and maintenance of the product are obliged to familiarize themselves with the instruction manual and observe it in its entirety.
- It is unacceptable to clean the product in a manner other than that described under "Technical inspections and repairs".
- Maintenance work and repair of the product should be done only when the product is disconnected from the electricity supply.
- Observe the markings on the product (e.g., pictograms, arrows indicating the direction of movement).
- Care should be taken to ensure that the markings are not covered by a layer of paint or damaged in such a way that they cannot be read.
- The electrical and control installation should be performed and inspected by an authorized person.
- The switch for controlling the device should be mounted at a height that complies with national regulations for people with disabilities, preferably at a height of less than 130 cm.
- In the event of snowfall, as well as at temperatures below or equal to 0 degrees, do not operate the blade rotation mechanism.
- Control the thickness of the snow cover on the roof. It is forbidden to exceed the permissible snow load.
- If the drive arms are unscrewed from the blades, there will be an abrupt closing of the roof, which poses a risk of cutting and crushing; before doing so, open the blades and insert permanent locking elements between them that will prevent spontaneous closing. The filling must not damage the paint coating.
- Pergola SB350 must not be used, including not being under it in case of storms, hailstorms, heavy snowfall, heavy rain (the roof should remain in the open position).
- The working area of the pens should be free of all obstacles and objects (e.g. cables, twigs, leaves).
- It is forbidden to stand, climb, load or hang on the pergola structure of persons or things (especially on the roof blades).
- It is forbidden to attach any objects to the product without the express written consent of the manufacturer.
- It is forbidden to put one's hand between moving pens and other moving parts and to put fingers between profiles.
- The product should be mounted at a height that prevents free access to the blades and mechanisms, and in the case of partial free access to these elements, other safeguards should be used to exclude this access.
- If you hear unusual noises from the motor or other components, immediately cut power until you can verify whether a malfunction has occurred and have it corrected, if necessary.
- Heat sources such as grills, open fires must not be under the pergola.




5.2 SAFETY REQUIREMENTS RELATED TO SPECIAL CONDITIONS AND PLACES OF USE OF THE PRODUCT.

The special safety requirements apply to children up to 42 months of age. The special use requirements apply to all places where young children have access to or may find themselves, such as homes, orphanages, hospitals, churches, stores, schools, nurseries, public places and other places where children may be present. In the event of a change of use to one of the above, the above comments should be implemented.
Special use requirements also apply in all areas where people with disabilities are present.

Before using the product, it is up to the Purchaser to carry out an individual risk assessment of its use, with particular attention to the safety of children and people with disabilities.

When determining the performance requirements of a product, it is important to consider reasonably foreseeable conditions of use and potential hazards.

Do not allow children to use the roof control device. Keep the remote control device away from children.

It is imperative that children or others do not put their fingers in the moving parts of the roof and the openings
in the profiles. Do not let children play near the moving parts of the roof.

Danger of head injury if staying in the area of moving roof blades. It is forbidden to stay in the area of working blades and mechanisms. If the drive arms are disconnected from the drive blades, there will be an abrupt spontaneous closure of the blades - risk of clipping and crushing.

Frequently inspect the installation for signs of wear or damage to the wires. Do not use if repair is necessary.

Avoid contact of the product with hot objects (e.g., heaters, stoves, irons, chimneys, etc.) or placing sources of convective heat (e.g., stoves, stoves, grills, etc.) under the movable roof, as this may lead to damage to the product.

5.3 SPECIAL REQUIREMENTS OF SNOW LOAD

The manufacturer allows a maximum snow load on the roof blades of up to 30 kg/m^2 .
Snow can load the roof as an even layer of uniform height.
Do not allow local accumulation and formation of snowdrifts, as well as the sliding of snow from adjacent roofs and buildings onto the pergola.
Due to the different weight of snow due to the time of deposition and the influence of moisture, the weight of snow varies over a wide range. Different snow weights according to EN1991-1-3:

Chart E.1 Average volume weight of snow

Type of snow	Volume weight (kN/m2)
Fresh	1,0
Settled a few hours or days after snowfall	2,0
Old (a few weeks or months after snowfall)	2,5-3,5
Wet snow	4,0

Conversion of the permissible thickness of the cover

	Permissible thickness of snow cover depending on the type [cm].			
Pergola	fresh	settled	old	wet
SB350	**30**	**15**	**8**	**7**

With snow accumulation, there will be visible and excessive deflection of the blades and beams and the possibility of local leaks from the blades and gutters. In addition, excessive column deflection and horizontal roof floating may occur for SB350.
We warn of the need for continuous monitoring and rapid response to coating thickness increments, particularly during additional wind exposure.

5.4 SAFETY IN HANDLING

Recommendations and activities:

- The product is safe to use provided that the recommendations contained in the documentation are followed and its installation is correct,
- Use the product only as intended,
- It is forbidden to use a product that does not comply with the requirements of shock and fire safety,
- Keep remote control devices away from children, they are not a toy,
- It is forbidden to exceed the specified operating parameters of the product specified in the technical and operational documentation,
- the operating time of the electric motor is specified in section 2.1 "Technical parameters" (it depends on the type of motor and manufacturer, detailed data are available on the motor manufacturer's website or www.selt.com). Exceeding the specified operating time of the motor can lead to permanent damage to the motor,
- It is forbidden to use an inoperative or decomposed product, as well as to make makeshift repairs; the use of such a product may cause damage to the product, pose a threat to the health and life of the user, and may void the warranty,
- do not keep any sharp objects or protruding parts near the guards, which can snag the on the moving roof and damage it,
- The system must not be operated, including the rotation of blades, in case of heavy snow, rain, in freezing weather or during hailstorms,
- Do not stay under the pergola during violent or intense weather phenomena (e.g., heavy rain, intense snowfall, thunderstorm, hailstorm, strong wind, etc.),
- A wind sensor is strongly recommended,
- clean the system regularly and perform inspections at the indicated intervals,
- Use only original spare parts,
- all work related to the inspection and repair of the product should be carried out by a properly trained person with the required authorizations and qualifications,
- It is forbidden to use the product and electrical installation without valid and required inspections and measurements,
- Before performing any maintenance or cleaning work on the product, it is essential to disconnect it from the electrical system,
- in the case of work on the facade of the building to which the product is anchored, it should be disconnected from the power supply,
- watch for any signs of wear or damage to electrical wires,
- if you notice signs of wear or damage to the electrical wires, the product should be disconnected from the power supply, and the defect should be removed with the help of an authorized person,
- in case of very noisy operation of the motor or other components, immediately turn off the power supply and have the fault inspected and, if necessary, corrected,
- It is prohibited to use or leave sharp objects on the product,
- if an automatic weather sensor (wind/sun) is used, it is necessary to switch to manual mode during the period: when the product cannot be used (among other things, due to lower temperatures, suspected malfunctions, during the period of inspection and maintenance, when the installer operates on the blades and mechanisms of the product); it is also recommended to turn off this sensor and open the roof in case of prolonged absence,
- The product should be cleaned regularly, at least once a year and in conditions of increased pollution (e.g. urban environment) and in coastal environment more often as needed,
- when performing cleaning of the product, take special care due to moving parts and the possibility of injury; disconnect the power supply, properly mark and secure the work area; before cleaning the product, remove loose dirt with a vacuum cleaner with a soft brush or broom, and then clean with water and mild detergents using a soft cotton cloth, after cleaning always rinse the surface of the blades with water (use cleaning agents in accordance with the recommendations of their manufacturer); it is forbidden to use abrasive agents or pressure washer, which can lead to damage to the paint coating,
- moving or rotating parts of the product should be lubricated annually with silicone spray,
- inspect the product on an ongoing basis and remove contaminants such as branches, leaves, birds' nests and other objects on an ongoing basis; when removing these contaminants, be careful, bearing in mind that these objects may fall on a person near the product or on objects under the product,
- The use of sharp objects with the product can lead to damage to the paint finish,
- Roofing in urban and coastal environments is exposed to pollution (smoke, smog, acid rain, salty seawater), which causes the paint coating to become dirty. The product should be cleaned regularly, at least once a year and in conditions of increased pollution and in coastal environments more often.

Do not operate the product in strong gusts of wind, during snowfall, freezing rain, or during very heavy rains, as the product may be damaged or destroyed and may endanger people in the vicinity (applies to a product mounted outside the building). In such cases, the roof blades should be in the closed position.
It is recommended to use wind automation to help meet safety conditions.

In case of any irregularities in the operation of the product, immediately notify the relevant SELT Sp. z o.o. service. Use of a defective product and independent repair attempts pose a threat to health and life and may result in the loss of, among others, warranty rights.

5.5 CONNECTION TO THE ELECTRICAL SYSTEM

Once the Pergola SB350 is assembled, you can proceed to connect the drive and control system to the previously prepared installations: power supply and control system. It is the installer/investor's responsibility to prepare the installation.

The connection to the electrical supply system should be made on the basis of a previously developed individual electrical diagram, taking into account the principles of electric shock protection.
The connection must take into account the environmental conditions in which the product will be used and the recommendations contained in the motor manual. Appendix at the end of this document.
Normal environmental conditions:

- Such conditions are found, for example, in residential and office premises, auditoriums and theaters, classrooms (except for some laboratories), etc.

Environmental conditions with increased risk:

- Environments with increased risk include bathrooms and showers, kitchens, garages, basements, saunas, pet rooms, hospital operating blocks, hydrothermal plants, heat exchangers, spaces enclosed by conductive surfaces, campgrounds, open areas, etc.

In rooms and spaces where there are conditions of increased danger, it is necessary to use automatic devices to switch off the power supply to the damaged product, such as residual current circuit breakers.

Residual current circuit breakers:

- recommended for use in bathrooms, kitchens, garages and basements,
- It is mandatory to use at swimming and spray pools, saunas, construction sites, powering outdoor equipment, agricultural and horticultural farms, camping sites and recreational vehicles, as well as in fire-prone areas.

Residual current circuit breakers are only a supplement to direct contact protection, they cannot be the only means of protection. Their function is to supplement protection when other means of protection against direct contact are ineffective or when the user is careless.
When connecting, it is necessary to take into account the safety regulations for use, such as the minimum height, from the floor, on which electrical accessories can be installed.

General guidelines for safe connection:

-wiring must be done by an electrician with electrical licenses and professional experience,
-When connecting, observe health and safety regulations,
-Electrical connection and setting of motors should be made in accordance with the motor manufacturer's instructions included with the product / available on the website listed below.

Diagram of the connection of the product to the electrical system:

Voltage 230V AC	⇒	Power supply 24V DC (SELT)	⇒	Blebox controller (SELT)	⇒	24V DC pergola motor

A detailed description of the conditions for anti-shock purposes that should be met by the electrical installation that is to supply the product.

In accordance with the standards that apply in the country. Depending on the receivers used and control configuration.

Power class	What we power	Installation type	Overcurrent protections	Protection against electric shock
Class I equipment has basic insulation, which provides protection against direct contact. In addition, in order to provide protection against indirect contact (interference protection or supplementary protection), connection to the protective terminal of the device, the protective conductor (PE) or the protective-neutral conductor (PEN) is used. This achieves: 1. protection by automatic shutdown of the power supply through the use of appropriate devices 2. limitation of touch voltages to levels that do not exceed the value of the safe touch voltage (UL) established for the given environmental conditions.	24V motor powered by 230V/24V inverter Class I device	It is necessary to use 230V~3 conductor installation (protective conductor, neutral and phase conductor)	Fuse matched to the power of the receiver	Residual current circuit breaker
Class II equipment is characterized by the use of reinforced insulation, which provides both direct and indirect contact protection. Another way to provide electric shock protection in Class II equipment is to use basic insulation and additional insulation. Since reinforced or additional insulation is used, it is not necessary to connect the device's housing to the protective grounding conductor, and it is possible to supply equipment of this class, for example, through two-wire cables with IEC C7 connectors. Equipment of protection class II is marked, e.g. on the nameplate, with an appropriate symbol (the so-called square within a square).	24V motor powered by 230V/24V inverter of class II device	It is sufficient to use 230V~2 conductor installation (neutral and phase wire)	Fuse matched to the power of the receiver	Residual current circuit breaker

The electrical connection and setting of the motors must be made in accordance with the instructions of the motor manufacturers.

The instructions are included with the product as well as available on the motor manufacturers' websites and on the website:

www.selt.com → OUR OFFER → AUTOMATION

The motor has a thermal switch that will shut down the drive after about 2 minutes of continuous operation to protect it from overheating (depending on external conditions). After being turned off by the thermal protection, wait until it has cooled down. The waiting time depends on the type of motor and the ambient temperature (usually after about 18 minutes the thermal protection should turn off).

5.6 CONTROL

If the control point is left in its factory default place, only the corner cover needs to be drilled and the external antenna tightened

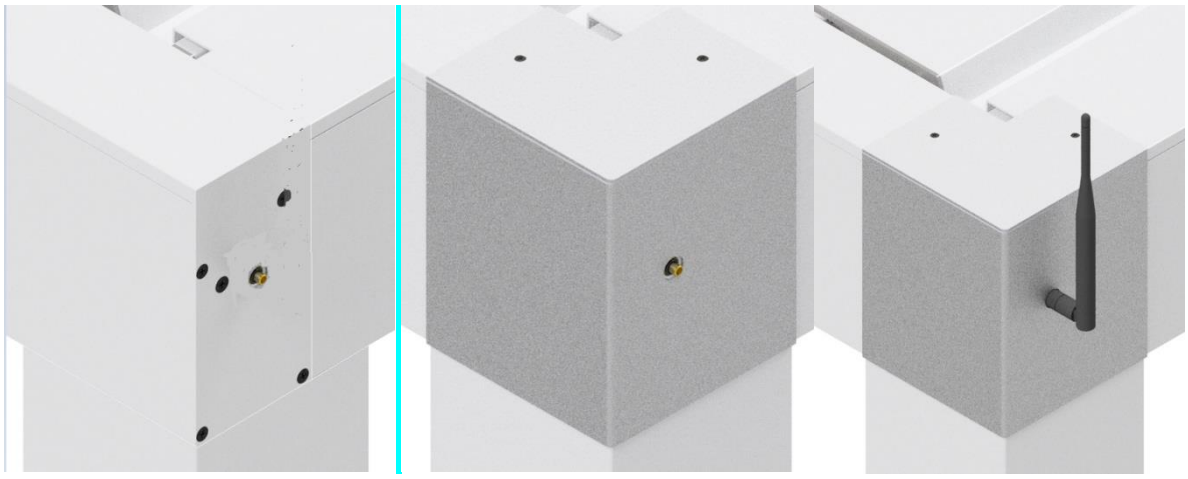


Fig. 4 External view of the factory control module in the corner of the pergola
- left: external view of the thread for the controller antenna
- middle - view of the thread from the pergola DC control unit after the drilled bezel has been applied (note: you have to drill the cover yourself - according to the position of the thread - see installation instructions)
- right - screwing the external antenna on the cover (to be done by the customer).

The remote control is pre-installed in the drive bar in the packaging from the power supply. Once removed, the magnetic mount supplied with it can be fitted. Tighten the magnet ring with the supplied pin in the desired location. The back of the case has an internal magnet that allows the remote control to be attached to the holder by the magnetic field.

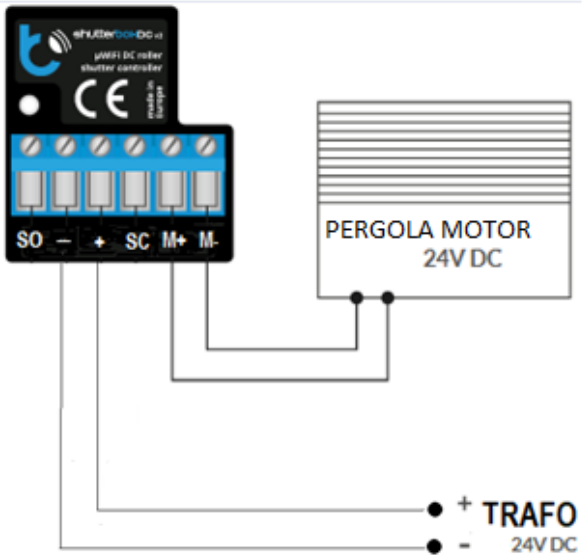


Fig. 5 Wiring diagram for the Pergola DC control unit (prefabricated by SELT)
Programming of the control (assignment of remote controls, weather sensors and other controls) should be done according to the control manufacturer's instructions.
24V= motor wiring harness marking with Hall sensor (six wire version):
Power wire:
Connecting (+) to the brown wire and (-) to the blue wire, we obtain piston ejection.
Connecting (-) to the brown wire and (+) to the blue wire, we obtain piston retraction.
black - Hall sensor power supply (not used)
red + Hall sensor power supply (unused)
green - Hall sensor A output (unused)
white - Hall sensor B output (unused)

Absolutely insulate unused wires from the cable harness

Connect the motor wires inside the PergolaDC controller (Figure 6):

CONNECTING THE HALLA SENSOR MOTOR to the Pergola DC control panel.	MOTOR + **M+**	MOTOR -. **M-**	HALL +	HALL -.	HALL1 out	HALL2 out
SITO 24V=	brown	blue	Red (unconnected)	Black (unconnected)	Green (unconnected)	White (unconnected)

Note: bold font indicates the description as it is on the circuit board in the PergolaDC control panel at the blue terminals.

Actions required for installation and wiring of the PergolaDC controller:
- before installing the controller, disconnect the voltage in the powered circuit; remember that all installation work should be carried out with the power supply voltage disconnected (turn off the mains installation fuse of the power supply circuit or disconnect the power supply from the outlet),
- the controller should be mounted in a place protected from adverse environmental conditions, protected from access of third parties - in a flush-mounted box or inside the housing of the controlled device,
- Metal elements (wires, parts of the housing) reduce the range of the device, and thus on the comfort of use,
- it is advisable that the device is fixed in a stable and stationary position,
- read the diagram and then proceed to install the controller,
- pay particular attention to the markings on the controller connector,
- Start by connecting the power wires from the dedicated 24V DC transformer to the pins: (+) and (-),
- sequentially connect the motor to the pins marked "M+" and "M-"; the order of connection of the motor wires is irrelevant at the installation stage - the direction of movement can be set at a later stage of the controller configuration,
- make sure that the device has been connected in accordance with the wiring diagram and that there are no metal elements near the controller that can accidentally short out the contacts, start the device by switching on the power supply voltage (turn on the fuse of the mains installation of the power supply circuit or plug the power supply into the socket).

Control by dedicated remote control:
The remote control is already pre-assigned to the PergolaDC control panel. If the remote control is replaced/replaced, it must be reassigned from within the application.

Control with a dedicated app:
Required download of the free wBox app. For Android devices, the app can be found in the Play store. For iOS devices, the app can be found in the App Store.
Using your cell phone or tablet, connect to your device's wireless network. To do this, go into your smartphone or tablet's settings, then into WiFi network configuration and find the network named "shutterBoxDC_v2-xxxxxxxxxxxx", where xxxxxxxxxxxx is the device's serial number. Connect to this network.
You can also do the configuration using your phone/tablet's web browser. After connecting to the controller's wireless network, turn on your browser and go to: www.blebox.eu
Continue to follow the controller manufacturer's instructions.

5.7 COMMISSIONING AND ADJUSTMENT

Recommendations and activities:
- adjust the end positions of the blades (closed and open position) during installation ,
- The person adjusting the limit switches should have knowledge and experience in this area,
- Adjustment of limit switches should be carried out in accordance with the instructions of the motor; special care should be taken in any adjustment due to the need to operate in the working area of the blades and mechanisms,
- Before putting the product into operation, electrical measurements should be carried out, primarily to check the effectiveness of the zeroing of the product and the electrical system by a certified person,
- Do not start the drive motor without checking the proper attachment of the product,
- When setting the stops, do not lean or hang on the product, do not leave tools on the product,

When commissioning a moveable roof, pay special attention to:

- Correct and equal rotation of the moving roof blades.
- correct tripping of limit switches

Arbitrary adjustment of end positions, by an untrained person, can lead to injury or death, as well as the product.

The indications of the fin tilt angle in the application are approximate. The measurement error is affected by the control method (transition between tilt steps or from zero to a preset step) and the eccentric attachment of the blade axis generating additional inertia and a change in the rate of rotation.

PergolaDC control troubleshooting

Symptoms	Possible causes	Solutions
The driven product does not work.	The wiring is incorrect.	Check PergolaDC wiring and modify as necessary. The antenna of the control panel must be outside the product and connected to the control panel as specified by the manufacturer of the control panel.
	The battery of the PergolaDC transmitter is discharged.	Check if the battery is discharged and replace it if necessary (2 AAA 1.5V batteries).
	The control transmitter is not compatible.	Check compatibility and replace the transmitter if necessary.
	The PergolaDC transmitter used is not programmed into the receiver.	Use a transmitter already programmed or program a particular transmitter.

5.8 IMPROPER USE OF THE SYSTEM

THE FOLLOWING ACTIVITIES ARE NOT ALLOWED

- Use of the product in the event of a defect or suspected defect; it is recommended to stop further use of the product.
- Report the fault to the supplier / system installer / installer.
- Discontinue use of the product if there are signs of wear or damage to the electrical wiring and immediately report concerns to the direct supplier.
- Do not stay in the working area of the moveable roof while the system is in operation.
- Do not use an inoperative or decomposed system. Use of such a product may damage it and create a danger to the health and life of the user and may void the warranty.
- It is forbidden to use a product that does not comply with the requirements of shock and fire safety.
- It is forbidden to exceed the operating parameters of the product specified in the technical and operating documentation.
- Do not keep any sharp objects or protruding parts near the system, which may snag and scratch it,
- Use not in accordance with DTE.
- Leaving the side curtains unrolled at wind speeds above 49 km/h

Persons assigned to handle

- Do not allow children to play with components used to operate the system, such as a remote control or switch.
- Keep the remote control away from children.

SB400PRO pergola workspace: risk of crushing, clipping and dragging

- Do not touch moving parts when closing or opening the moving roof. This may cause crushing, cutting, pulling, wedging between, for example, blades and other parts of the system.
- It is forbidden to disconnect the drive arms from the pins of the drive blades without first locking the space between the blades - the blades will rapidly fall spontaneously due to the eccentric attachment.
- Within the working area of the moveable roof, there must be no obstacles that can interfere with its operation or cause damage to it.
- In the event of a blade raid on an obstacle, first open the roof slightly and then remove the obstacle.
- It is not allowed to stay in the rotation zone of the pens while they are working.
- No obstacles (cables, branches, etc.) may be in the area of the pens when they are rotated.
- It is forbidden to put one's hand between the moving blades and to put one's fingers in the area of profiles and drive mechanisms.

Automatically controlled products may start automatically. When doing any work on the product, permanently immobilize the product so that it does not start accidentally. Make sure that no dangerous situation occurs.

6 USE AND MAINTENANCE OF THE SYSTEM

6.1 USING THE SYSTEM AS INTENDED

The system must be operated in accordance with its intended use as specified by the manufacturer. If the system is operated and modified in a manner different from that described in this documentation, the system manufacturer has grounds to disallow warranty or guarantee claims.

SB350 pergolas manufactured by SELT Sp. z o.o. do not require special maintenance. Using the product in accordance with the manufacturer's recommendations assures the user of the correct functioning of the product.

If the product is used in a manner other than that described in this documentation or modified without authorization from SELT Ltd.
z o.o. then it is used improperly.
Making arbitrary changes that affect the safe operation of the product is not allowed.

Proper use of the product includes:

- normal use or foreseeable use that does not include, for example, risks taken by the user intentionally or knowingly,
- Application of permissible values of operating parameters,
- Compliance with operating recommendations,
- Performing periodic inspection and maintenance of the product,
- comply with the requirements set forth in this Documentation,
- adhere to the requirements of the "Technical Specifications" section.

In case of improper use:

- The product may endanger operators,
- The product will be exposed to damage,
- This may adversely affect its functionality,
- do not use the system during maintenance or repair work, as well as other cases indicated by the manufacturer.

The gutters in the system are supplied by the manufacturer, as sealed elements.
Sealing the connections between gutters during installation is the responsibility of the investor/installer and is not covered by the warranty.
Perform periodic checks for leaks and repairs of seal cavities at intervals not exceeding 6 months.

SELT Ltd. assumes no responsibility for damage caused by improper use.

Operating the system out of sight can cause severe injury, as well as damage to the product.
If side screens are used in the product, failure to roll them up in winds above 49 km/h (13.6 m/s) may result in structural deformation or damage to the system

6.2 INSTRUCTIONS FOR NON-EXPERTS

Non-professionals are those who perform activities related to the day-to-day use and ongoing maintenance of the product.

Before using the product, read this documentation carefully.

Thorough knowledge of the documentation allows for trouble-free and safe operation of the product.

List of activities that can be performed by non-experts:

- Ongoing use of the product via remote control,
- ongoing inspection of the product by opening and closing the roof blades with continuous observation of all components of the product,
- Have the product serviced, repaired and cleaned by a specialized installer.

6.3 INDICATIONS OF RISK , FAILURE OR ACCIDENT

Description of residual risk

Risk factor	Description of the correct procedure
Accident	- Disconnect the product from the power supply, - take first aid measures on the injured - call for help tel. 112
Product failure (hazard)	- Disconnect the product from the power supply, - Remove users from the danger zone, - In case of fire, use only ABC-class fire extinguishers, - If necessary, notify the fire department, - notify the service company - if the failure only causes locking of the product without additional risks - check the section "Product failure (locking)"
Product failure (blockage)	- Disconnect the product from the power supply. - perform an external visual inspection for the presence of foreign elements in the blades or drive, - check visible parts of the wires for insulation damage or discontinuity, - in the absence of apparent causes, check the point "motor overheating" - inform the supplier in order to obtain a solution
Spontaneous blade closure (when the drive arms are disconnected)	- before disconnecting the arms from the blade pins, put the filler/security between the blades in the open position to block their descent
Strong wind (above 49 km/h)	- We recommend the use of a wind sensor that will close the laths, which is more favorable from the point of view of the wind resistance of the entire structure. The wind speed value is determined according to the wind class for the structure.
Snowfall and icy conditions	- in case of snowfall, set the laths in the snow position (slightly open) - the permissible snow load must not be exceeded - in winter when there is a risk of snowfall and icing of the slats, we recommend opening the slats to the snow position. - It is possible to use an automatic controller, which for temperatures close to freezing and rainfall or snowfall will automatically open the slats slightly (snow position). **CAUTION** If snow or ice builds up on the fins when trying to start, mechanical damage may occur. It is recommended to use a motor with an overload sensor.
Intense rainfall	The system is adjusted for rain protection (for a certain intensity of rainfall). In case of intense rainfall, the pens are left in the open position. - The drives have a protection class of at least IP65, and are mounted under a cover (canopy). Thus, protection against drops falling from any angle is ensured, but attention should be paid to the position of the power cable in such a way that rain drops do not run down the cable towards the motor
Electrocution,	The electrical installation must be carried out in accordance with the standards that apply in the country. - electrical wiring with double insulation and with an additional cover to protect the wires mechanically and against UV radiation - residual current protection
Short circuit in the installation and fire	- conductors with the appropriate cross-section suitable for the power of the receivers and for the selected overcurrent protection - overcurrent fuse according to the power of the receivers
Motor overheating	The motor is designed to operate with cooling intervals. For DC motors, there is usually no thermal fuse, so the controller should provide a limit on the operating time.
Malfunctioning control system (motor)	Risks arising from the possibility of damage to control system components. The possibility of a short circuit at the input of the device - overcurrent protection of the supply line will be triggered. The possibility of damage to the relay contacts, short-circuiting both contacts of the controller - short-circuiting the contacts of the DC motor relay or solid-state switches, depending on the configuration of the switching elements, can short-circuit the power line and then the overcurrent protection will trip. - faulty motor control

	- defect in the electrical system
Noise	Noise during drive operation does not exceed 70dBA. Typically, it is between 50 and 60 dBA when measured from a distance of 1m. The noise is generated when the product's fins are repositioned.
Important additional notes	Technical data can be found on the motor nameplate. The moving parts of the motor must be mounted at a height of more than 2.5 m above floor level or other surface from which there is access to the motor.

6.4 TECHNICAL INSPECTIONS AND REPAIRS

Current inspections

Performed by the customer on its own. SELT recommends that the inspection be performed at the times listed below.

Basic activities including current review:

- Visual inspection and ongoing removal of foreign bodies that may interfere with the proper operation of the product and movement of mechanisms (on an ongoing basis no less than once a day before use and after violent weather events),
- Checking the patency of drains (optional for gutters) - once a week and after heavy downpours,
- Removal of debris from gutters (optional for gutters) - once a week and after heavy downpours,
- Checking the thickness of the snow accumulation - in the case of snow accumulation on the product - every day and additionally after heavy rainfall or blizzards,
- Removal of excessive snow layer (above the permissible value) and possible snowdrifts and overhangs - each time the snow load is found to be exceeded and with uneven distribution,
- Visual inspection and ongoing removal of phytosanitary contamination (as soon as noticed),
- When a defect is observed, disconnect the product from the power supply and have it repaired immediately,
- Observation of the opening and closing of the blades with continuous observation of all elements of the product - depending on the frequency of use - not less than once a week,
- Before the current inspection for approaching the moving and electrical components of the product, disconnect the product from the power supply (in particular, in such a way that the product cannot be started by automation),
- If the product is placed at a height of more than 2.5 m, it is recommended that the above activities be carried out by a specialized team.

Technical reviews

Performed on commission for a fee by SELT or a specialized installer after the warranty period. The scope is determined in each case by the specialized installation team, and the performance is confirmed by a service protocol.

Cleaning

It is imperative to disconnect the product from the power supply before cleaning.

Cleaning of metal / aluminum components:

- It is recommended to clean light dirt on accessible metal / aluminum surfaces with water and mild detergents, using a soft cotton cloth, always rinse after cleaning (as needed).
- Remove phytosanitary contamination (as soon as it is noticed).

Prohibited activities when cleaning the product:

- It is forbidden to use pressure washers, as well as cleaning agents and sponges and solvents (such as alcohol, gasoline).
- It is forbidden to use cleaning agents with chlorine, ammonia, kerosene, acetone and bleach to clean the system as well as in its vicinity, as this will cause the risk of corrosion.
- It is forbidden to use sharp tools (e.g. wire brushes), cleaning agents that cause scratches (e.g. scouring powders, pastes).
- Do not firmly hold or pull the system or its individual components.
- Do not replace damaged parts with replacements ! Use original replacement parts !
- Water must not be allowed to enter the motor.
- Do not deform the blades.
- After cleaning, connect the power supply (control) and test the operation of the system. Pay attention to the operation of the system, and if unusual behavior and noises occur, report the problem to the direct supplier.

Repairs

Any abnormal/abnormal operation of the system or abnormal noises of its operation, require the user's intervention and reporting to a specialized installer. Repairs are performed by SELT Sp. z o.o. or a specialized installation team under a separate agreement.

7 COMPLAINT / TECHNICAL DEFECTS

7.1 COMPLAINTS (MANUFACTURER'S WARRANTY)

Complaints can only be filed by the entity that purchased the product from the manufacturer.

The term and conditions of the warranty, as well as how to handle complaints, are specified in the General Terms and Conditions of Warranty and General Terms and Conditions of Sale available on the manufacturer's website.

- The condition for accepting a complaint is to provide the number of the contract, order or invoice, and a written notification of the complaint. It should include a detailed description of the defect, the name of the company that installed the product and the date on which the defect was found.
- The notification should include a detailed description of the defect, the name of the company that installed the product and the date on which the defect was found.

Goods without a specified invoice number, order number or contract number, and only after completion will be considered successfully reported. The terms and conditions for reporting warranty claims are set forth in a separate agreement.

7.2 TECHNICAL FAULTS

In case of system defects, you should:

- if possible, open the movable roof and take the device out of service,
- Immediately report a product defect to the appropriate specialized installation team.

8 DISMANTLING / DISPOSAL / DECOMMISSIONING OF THE PRODUCT

Improper disassembly of the system can cause severe injury and damage to the system.
The dismantling of the system should be outsourced to a suitably specialized installation team or to a person with appropriate health and safety training and recovery expertise.

a) Disposal of waste electrical and electronic equipment

At the end of the product's useful life, it is necessary to dismantle it and segregate the various materials and components in accordance with the Decree of the Minister of Climate of January 2, 2020 on the waste catalog for disposal.
Important information on disposal:

According to the provisions of the Law of September 11, 2015 on waste electrical or electronic equipment, it is prohibited to place together with other waste used equipment marked with the symbol of a crossed-out municipal waste container. The user, wishing to dispose of electronic or electrical equipment, is obliged to return it to a waste equipment collection point.
The above-mentioned statutory obligations were introduced to reduce the amount of waste generated from waste electrical and electronic equipment and to ensure an adequate level of collection, recovery and recycling. The equipment does not contain hazardous components that have a particularly negative impact on the environment and human health.

Lp.	Subject	European Legal Basis	Polish Legal Basis
1	Waste electrical and electronic equipment	European Parliament and Council Directive 2012/19 EU of July 4, 2012 on waste electrical and electronic equipment (WEEE)	Law of September 11, 2015 on waste electrical and electronic equipment (Journal of Laws of 2020, item 1893, as amended).
2	Waste catalog	Commission Regulation (EC) No. 574/2004 of February 23, 2004 amending Annexes I and III to Regulation (EC) No. 2150/2002 of the European Parliament and of the Council on waste statistics	Regulation of the Minister of Climate of January 2, 2020 on the waste catalog (Journal of Laws 2020, item 10).

b) Disposal of used batteries

In accordance with the provisions of the Act on Batteries and Accumulators of April 24, 2009, the **end user** is obliged to hand over used portable batteries that are no longer a source of energy to a **collector of** used batteries or to a collection site. It is prohibited to place used batteries together with other waste in the same container.

In order to prevent pollution of the environment and causing possible health risks to humans and animals, the used battery should be disposed of in a suitable container at designated collection points.

Lp.	Subject	European Legal Basis	Polish Legal Basis
1	Used batteries and accumulators	Directive 2006/66/EC of the European Parliament and of the Council of September 6, 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91 / 157 / EEC.	Act of April 24, 2009 on batteries and accumulators (unified text Dz. U. of 2020, item 1850)

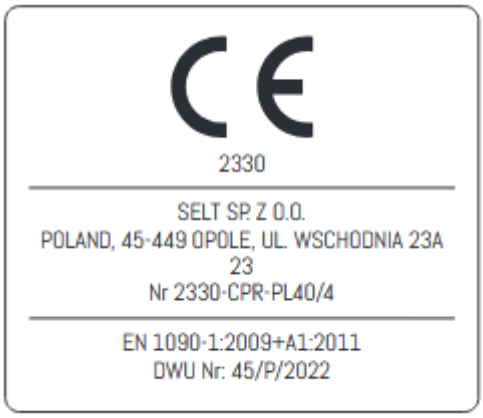
9 CE MARKING AND LABELING OF THE PRODUCT

9.1 CONFORMITY OF THE PRODUCT WITH THE CE STANDARD

The SB350 Pergola's safe construction is made to comply with EN 13659:2015 (roof) and EN-1090-1 (EXC2 class support structure).
TO MAINTAIN THIS CONDITION AND TO ENSURE THE SAFE USE AND MAINTENANCE OF THE SYSTEM, FOLLOW THE INSTALLATION INSTRUCTIONS AND THE OPERATION AND SAFETY INSTRUCTIONS.

9.2 INFORMATION ACCOMPANYING THE CE MARKING

a) labeling on the product:



b) marking on accompanying documents

CE
SELT Sp. z o. o. **Opole, 23A Wschodnia St.** **POLAND** **23**
Outdoor louvered pergola **Pergola SB350** **24V/ DC** **43 Watt Power** **20 / DZ / 2022**
EN 13659 **Sunshade** **For external use.** **Wind load resistance: class 3** **TWO 162 / S / 2022**

CE
SELT Sp. z o. o. **Opole, 23A Wschodnia St.** **POLAND** **23**
EN 1090-1 **Steel and aluminum construction elements and kits -** **Pergola SB350** **DWU 45/P/2022**

10 EXCLUSIONS FROM LIABILITY

The General Warranty Terms and Conditions are available at www.selt.com. If you do not have access to the SELT Sp. z o.o. website, the warranty terms and conditions can be obtained from your SELT Sp. z o.o. sales representative.

10.1 EXCLUSIONS FROM LIABILITY

SELT Ltd. shall not be liable and shall not indemnify the warranty or guarantee in the event of:

- Damage caused by transportation other than SELT transportation.
- Damage caused by storage, installation, use of the product and maintenance not in accordance with the technical and operating documentation, installation instructions or manufacturer's recommendations, unless these activities were performed by the manufacturer.
- Damage resulting from the alteration of the system, unless the alteration was performed by the manufacturer, on his order or with his written consent.
- Secondary damage, resulting from the use of the device despite the perception of the original defect, unless the manufacturer has been notified and recommended further use. Assessment of the causes of damage is left to the reasonable discretion of the manufacturer. Repair or replacement of the device due to damages referred to in this section may be performed by the manufacturer for a fee.
- Defects due to age and normal wear and tear of product parts.
- Mechanical and electrical damage caused by the user.
- Damage caused by improper installation of the product, performed by a company other than the manufacturer.
- Use of anchoring elements that are too weak or attachment to a substrate (substructure) with insufficient bearing capacity (parameters).
- Damage caused by self-repair.
- Damage caused when the system is used in inappropriate weather conditions (outside of the intended scope of the instructions).
- Damage caused by abnormal weather conditions (lightning, storm, hail, water, fire).
- Damage resulting from accidents and unexpected events.
- Characteristic noises of the system's operation, produced when the pens rotate (this is a product feature).
- Leaks resulting from incomplete closure of moving parts or heavy rainfall.
- Limitation of the degree of watertightness resulting from location, finishing, installation and sealing as well as extreme weather conditions that have a major impact on the watertightness of the product.
- Leaks or leaks between the gutters and the substructure, as the sealing of gutter penetrations is performed by the customer.
- Water formed from condensation that may appear on the lower surface of the blades and the lower surface of the structure.
- Formation of water droplets on beams, columns or blades, unless due to a product defect, subject to consultation with the installer, who will assess whether this is due to an installation defect or product defect.
- Splashes of water in the areas of the outlets of the drain holes resulting from the peculiarities of their shape - they cannot be completely avoided.
- Damage resulting from inadequate cleaning with improper instruments, corrosive substances and abrasive substances.
- Atmospheric and phytosanitary pollutants and dirt caused by animals.
- Paint film contamination in urban environments exposed to pollution (smog, smoke, acid rain, dust).
- Damage caused by the influence of other products, objects or suspended accessories not foreseen by SELT.
- Deformation and damage to the structure, especially blades, caused by the load induced by the User (standing, moving or hanging on the product).
- Color differences in parts that may occur during the manufacturing process.
- Discoloration of elements intensively exposed to weather conditions.
- Corrosion of components operated in an environment with high sea salt content in the air.
- Possible cracks in the glazing due to mechanical damage as a result of improper installation of the system or caused by uneven heating due to the location of installation of the system.
- Differences in the angle of closure of the movable roof blades, which can be about 2°, and are a natural feature of the system due to manufacturing and technological tolerances of the components.
- Damage caused by commissioning in frost and other natural conditions.
- Damage caused by snow accumulation on the blades above the permissible values and with uneven distribution of snow gusts - in case of snowfall, the roof should be in the snow position.
- Damage caused by the use of equipment and flooring not intended for outdoor use under the product.
- Damage resulting from activating the blade rotation mechanism in winds above wind class 3 (49 km/h) and leaving the blades open in winds above the mentioned class.

- Deflections of the beams of the structure that do not exceed the values specified in PN-EN 1090-1 and Eurocode 9, are a natural feature of the system.
- Damage or deformation caused by unrolled side screens above wind speeds of >49 km/h
- Possible stagnation and outflow of water remaining in the blade gutters.
- Tilt angle discrepancies between the application's indication and the actual pen tilt.

Selt is also not responsible for:

- A product in which the CE sticker has been removed or is illegible,
- A product in which pictograms informing about particularly important hazard and safety information have been removed
  ,
- Improper use of the product or not in accordance with its intended use,
- Damage caused by voltage fluctuations in the network if they exceed 5% or faulty control,
- To prevent overheating of the product, heat sources such as grills, open flames must not be within the system,
- SELT Sp. z o.o. is also not responsible for any events resulting from non-compliance with this documentation, as well as the consequences of events that the installer, investor or specialized installation team should take into account when conducting the investment or work performed.

Notwithstanding the above, the scope of SELT Sp. z o.o.'s liability is limited and results from the agreement concluded with the purchaser of the product.

APPENDIX 1 (24VDC MOTOR MANUAL)