

Tarasola®



Tarasola Cubic

**TARASOLA
CANOPY AND COMPONENTS
USE AND MAINTENANCE MANUAL**

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1 SUBJECT OF THE DOCUMENTATION

The purpose of this documentation is to familiarize the user with the intended use of the structure, its principles of operation, and rules regarding handling of the Tarasola-branded product. This booklet also contains guidelines for use and service activities.

2 PRODUCT IDENTIFICATION

The following describes a folding canopy with the trade name Tarasola Cubic. It is an aluminum structure with fabric cover, operated by automatic mechanisms.

Designed in accordance with the EU Council Regulation – CONSTRUCTION PRODUCTS. When properly installed it can withstand the wind pressure equivalent to the 3rd wind class, the criteria of which were established by the standard PN-EN 13561 + A.1: 2009 – EXTERNAL BLINDS AND AWNINGS - performance requirements including safety. This technical class ensures that the awning can withstand a wind pressure of 110 N/m², equivalent to a continuous wind pressure of 49 km/h, which corresponds to 6 in the Beaufort scale.

The calculations concerning wind load resistance were performed according to the standard PN - EN 1932: 2013 - 09 - EXTERNAL BLINDS AND SHUTTERS - RESISTANCE TO WIND LOADS METHOD OF TESTING and for structures with electric drive - Machinery Directive 2006/42/EC.

The canopy was designed as an external product, for wind, rain, and sun protection, for commercial clients as well as for residential and private buildings.

Operated by electric drives.

The structure may be enhanced with additional functionalities such as: heat radiators, glass walls, roller blinds, integrated lighting (additional products are described in detail in a separate booklet), creating a comprehensive design of a terrace canopy.

Familiarizing oneself with the manual shall ensure the proper functioning of the product.

Compliance with the guidelines therein shall ensure durability of the canopy.

3 TECHNICAL SPECIFICATION

3.1 Structure

The canopy structure consists of an aluminum substructure. The structural elements are thick-walled extruded profiles, coated with a layer of thermally hardened powder varnish.

Supporting structure consists of the following elements:

1. Aluminum guides - the number and spacing of the guides depends on the width of the unit.
2. Clamping beams – aluminum profile with an integrated gutter, acting as a front and rear beam that connects the structure.
3. Support pillars - aluminum leg profile together with an integrated water drainage system. The number of supporting legs depends on the width of the module. The supporting pillars are equipped with brackets intended for screwing to the base.
4. Side gutters (middle gutters) – aluminum profile that drains water and stiffens the structure.
5. System roof - made of steel or aluminum sheet. The system roof overhang depends on the canopy extension.
6. Aluminum anti-wind beams - guide, stretch, and strengthen the material of the beam with the fabric.
7. Starting profile - aluminum wall mounting profile, available in the wall unit.

Note: there may be slight color differences between various suppliers of paint powders.

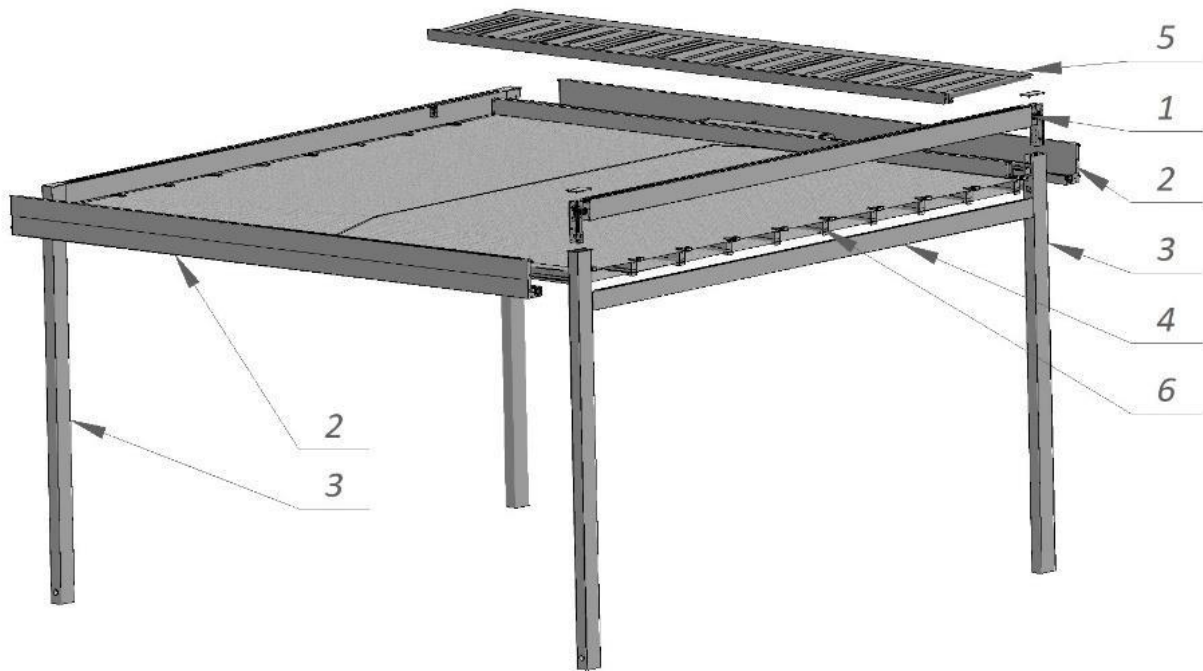


Fig. 1 Graphical representation of the freestanding Tarasola Cubic structure

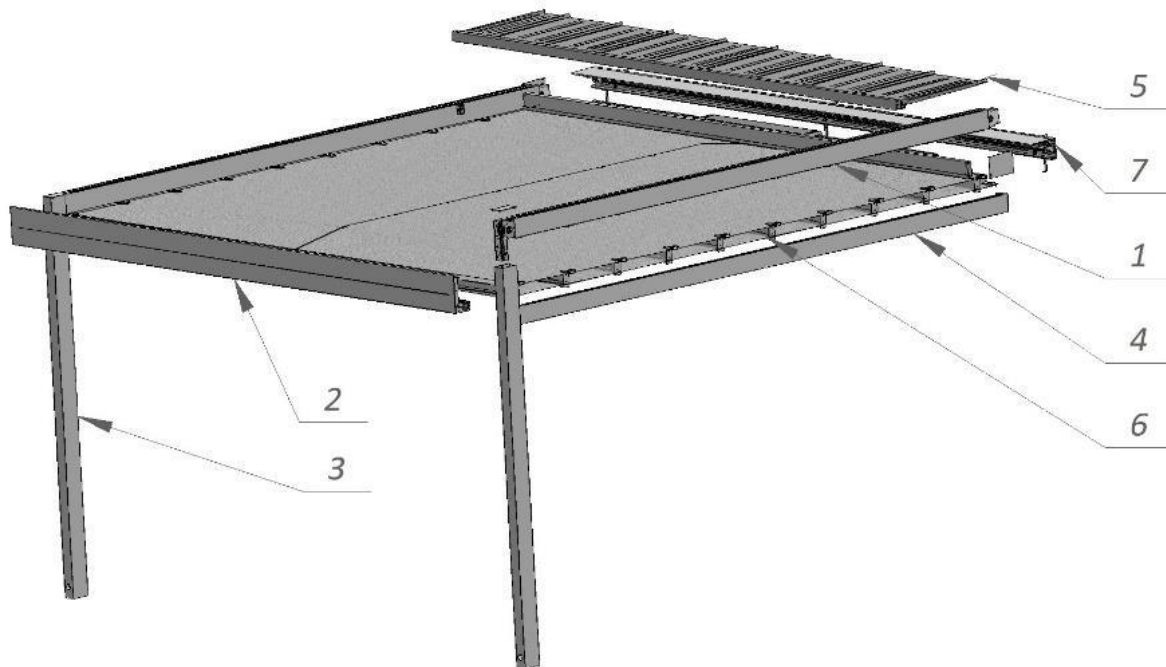


Fig. 2 Graphical representation of the Tarasola Cubic wall structure

3.2 Wind class

The canopy of the structure was subjected to FEM tests (Finite Element Method), which resulted in determining the wind resistance in relation to the width and extension of the structure. The maximum pressure is 570 (N/m²), which represents the sum of the resistance of forces acting on the structure, which in turn corresponds to the maximum wind speed of 110km/h – 11 in the Beaufort scale.

		Width (in cm)										
		300	400	500	600	700	800	900	1000	1100	1200	1300
Extension (in cm)	200	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117
	300	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117	103-117
	400	103-117	103-117	103-117	103-117	103-117	89-102	89-102	103-117	103-117	89-102	89-102
	500	103-117	103-117	89-102	89-102	75-88	75-88	75-88	89-102	75-88	75-88	75-88
	600	103-117	89-102	75-88	75-88	75-88	62-74	50-61	75-88	62-74	62-74	62-74
			2 guides			3 guides			4 guides			

*Values are given in relation to km/h.

Fig. 3 List of wind classes – Tarasola Cubic

3.3 Electrical components for Tarasola Cubic

Tarasola cooperates with the best suppliers on the market in order to ensure the highest level of offered products. Thanks to the electrical components used in our products, we are offering a comprehensive product to our Clients - the best on the market.

WARNING! Due to the complexity and specificity of the product, installation shall be performed by qualified personnel. Any actions inconsistent with the guidelines may cause a potential threat and void the warranty.

ELECTRIC MOTOR. A motor with a built-in radio receiver and an electric limiter. Secure coding system. Simple programming and maneuvering. All operations are controlled by the motor, and it works at low speed. Operation via remote or local controller.

Installation remarks

The protection rating of a motor installed outside stands at IP 44. However, if the switch shall be installed internally then its protection rating may drop to IP 40. The voltage supplied to the motor must be 230 V. The wiring must be insulated.

Motor connection diagram is presented below.

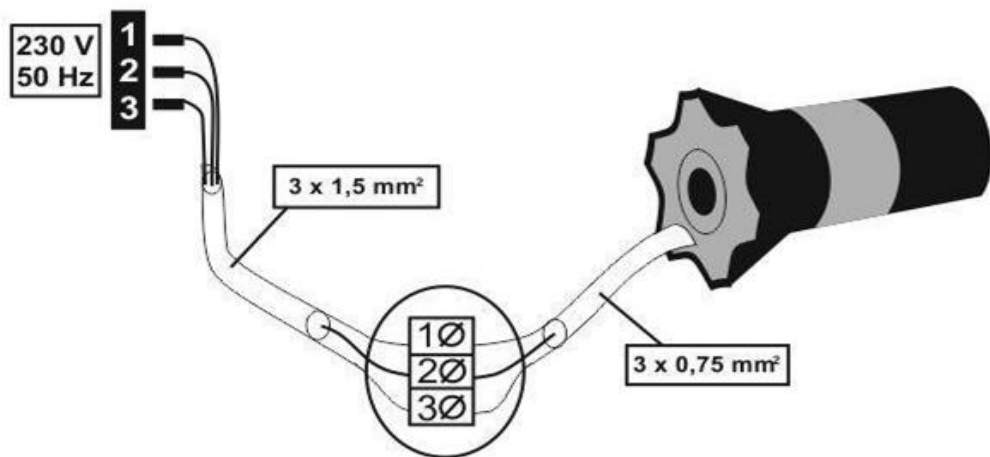


Fig. 4 Electrical drive with remote control.

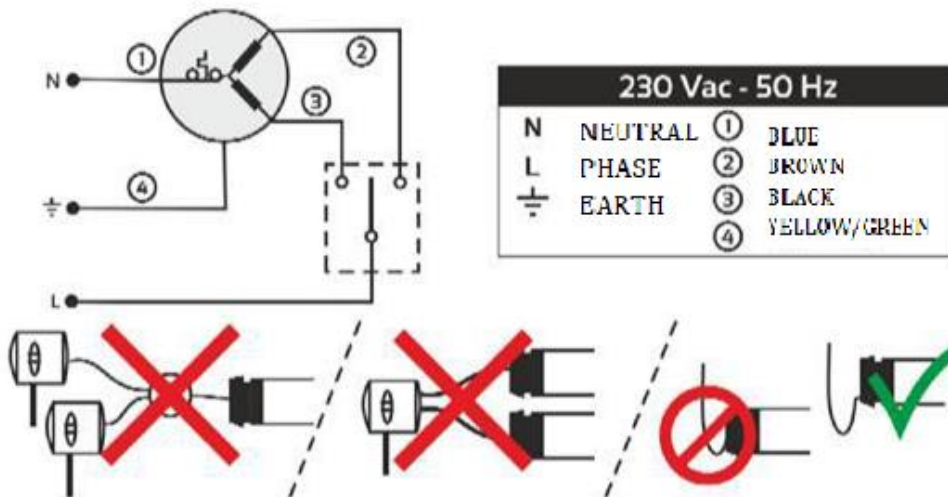


Fig. 5 Electrical drive with a switch.

It is not recommended to connect more than one motor to one switch (and vice versa). The exception is having a switchboard.

Warning!

All wiring connection diagrams shall be obeyed, otherwise warranty may be voided.

REMOTE CONTROLLER

- Manual radio control of one or more RTS drives and/ or radio receivers

or a group of RTS drives and/ or radio receivers.

- Handling of a single device or a group of devices is possible.
- Stopping the motion and/ or forcing the motion via a convenient button.
- Remote controller is equipped with an adjust function which enables, for e.g., intensity of illumination to be adjusted.
- A convenient LED indicates that an action was requested by the user and enables selection of a channel in the remote controller (in case of multi-channel remote controllers).
- Wireless, battery powered remote controller(CR 2430 battery).
- Working temperature: 0°C/ +60°C.
- Protection rating: IP 30 / IP 40.
- Radio frequency: 433.42 MHz.

Electrical components are handled with ease by an integrated motor system. Wind and rain covers unfold and fold in full or to the desired extension, thus enabling either shade or sunlight to shine through.



IN THE EVENT OF A FAILURE OF THE ELECTRICAL SYSTEM OF THE STRUCTURE, IMMEDIATELY DISCONNECT THE MAIN POWER SUPPLY OF THE CANOPY AND REPORT THE FAILURE TO THE MANUFACTURER. ONLY QUALIFIED PERSONNEL SHALL ENGAGE IN REPAIRING THE ELECTRICAL SYSTEM. ANY ACTIONS CONSTITUTING SELF-REPAIR AND NEGATIVE EFFECTS OF SUCH ACTIONS MAY RESULT IN THE WARRANTY BEING VOIDED.

A detailed description of the operation of electrical components can be found in a separate user manual.

3.4 Fabric components in the canopy

The fabric is made of durable components which are resistant to changing weather, thermal, and mechanical conditions. For sewing, we use multi-filament polyester SERAFIL® threads, while the material used in the fabric manufacturing process is, among others, PTFE (polytetrafluoroethylene) and PVC (polyvinyl chloride), joined together by high frequency technology - High Frequency Welding.

TECHPROTECT

Double-sided PVC-coated polyester; embossing within the fabric

imitating the fabric on the inside; anti-dust acrylic coating; fabric weight: 850g/m²; fabric thickness: 0.5mm; fracture toughness approx. 250/250 DaN/5cm (ISO 1421), tear resistance approx. 25/20 DaN (DIN 53363); 2nd fire resistance class M2 (NFP 92-507); allowed temperature changes: -30/+70°C; 100% watertight.
Cleaning and care: water, light detergent + soft cloth.

SOLTIS W96

1100 Dtex polyester with double-sided PVC coating; micro-perforated PVC cover; shiny coating. Weight 620g/m², tensile strength 220/220 daN/5cm (EN ISO 1421), tear resistance 25/20 daN (DIN 53.363), thickness 0.56 mm, fire resistance: 1st class (UNI 9177-87), 2nd class M2 (NFP 92-507); 100 % watertight.
Cleaning and care: water, light detergent + soft cloth.

SERGE 600 SOLAR

Fabric coated in fiberglass yarns, composition: 34% fiberglass, 48% PVC, 18% laminate. Weight 645g/m². The fabric blocks sunrays out but retains transparency - translucency 3%; fire resistance: 1st class (UNI 9177-87), 2nd class M2 (NFP 92-507); allowed temperature changes: -30°C/+70°C, 100% watertight.
Cleaning and care: water, light detergent + soft cloth.

3.5 Limitations of the fabrics

Watertightness - acrylic fabrics are not watertight. They contain microscopic, porous holes where the threads cross. External impregnation applied on acrylic and polyester materials creates a protective layer against dirt, water, and oily substances. During rainfall water drops run down easily when the canopy is sloped. Weather and mechanical conditions gradually reduce the effectiveness of the impregnation.

Rot resistance - the canopy fabrics are usually made of synthetic materials, which do not contain any biodegradable substances. This, in turn, makes them rot-proof. The accumulation of dirt and other naturally occurring substances on the fabric surface, coupled with moisture, may create very good conditions for fabric degradation. Folding of a damp fabric may have an additional negative effect on the condition of the fabric and may cause change in its color. It is important to let the fabric dry before folding it.

Creases - the cobweb effect: creases may form as a result of folding the fabric, the "wrinkle" effect may, particularly when exposed to light, become darker. This, however, does not affect the usability of the fabric and is not

covered by the warranty.

Waves - may form close to the sewing or welding of the fabric as well as on the side of the edge, due to double thickness of the fabric.

Fraying and abrasion - if the canopy is exposed to constant high winds, it may show signs of wear, tear, and abrasion. This may occur after many years of misuse.

4 CANOPY USER MANUAL AND GENERAL SAFETY REGULATIONS



Proper functioning and avoidance of breakdowns resulting from improper use shall be ensured by following the rules below. The entirety of the support is burdened with a load which may cause oscillatory motion. This motion is not an indicator of structural weakness but shall be considered normal for a complex structure. Therefore, deviations and motions of the structure shall be allowed.



Repeated opening and closing of the canopy may overheat the electric drive, thus activating the thermal switch which shall disconnect the power supply. The motor shall remain off until the temperature is adjusted.



It is forbidden to use the canopy in conditions and for purposes different to those provided for by the manufacturer, which shall be to act as sun, and rain protection.



It is forbidden for third parties to place any items, install additional fixings, hooks, hangers on the canopy structure without manufacturer's consent. This increases the risk of product failure and shall result in the product warranty being voided.



Be careful when opening and closing the canopy. Due to the risk of damaging one's hands, it is forbidden to touch the structure when it is in work mode.



The structure is not of a self-cleaning nature. Cleaning shall be performed only after turning off the electric power supply of the canopy. Cotton cloth and water with light detergent are recommended to clean the structure.



Please contact the Manufacturer in the event of a canopy malfunction or failure. Users shall not make any repairs to a faulty canopy.



The manufacturer shall not be liable for random events affecting the product, such as: weather conditions below/ above the standards presented in the product sheet; as well as electromagnetic disturbances, electrical discharges and power surges.



During rainfall, snowfall, hail, and strong winds (exceeding the permissible standards for a structure of a particular size), the canopy shall be folded immediately. Failure to comply with the above recommendation increases the probability of damage, canopy destruction or accident, as well as loss of warranty.



The canopy is not designed to carry snow loads. In the event there is snow on the canopy panels or the panels are covered in ice, please remove the snow and/ or ice layer immediately.



In order to maintain the water drainage system unobstructed, it is necessary to check and remove waste such as leaves, conifer needles, and other type of waste from the gutters at least twice a year. This shall help maintain the flow capacity of the gutters mounted in the supporting legs of the structure. The manufacturer recommends that structures installed in the vicinity of natural environment shall be cleaned as often as it may be required.



It is recommended to check the state of the structure - in springtime, before the start of the summer season, and in the fall - before the canopy is closed for the winter season. The structure may be checked more often if alarming events occur. Defects resulting from failure to comply with the above shall not be covered by the manufacturer's warranty.



Due to the design of the structure, the guide rails and the canopy profiles shall be checked for the presence of ice before opening/ closing the canopy, particularly during cold temperatures. Icing may damage the components of the guides themselves as well as the electrical components and this shall not be covered by the manufacturer's warranty. It is recommended to check the flow capacity of the guides each time before switching the canopy on (in case any foreign matter, such as leaves, sticks, insects or

animals got inside) – ICING.



Due to temperature differences, dew may appear on profiles and on the fabric, as well as condensation of water vapor under the canopy may occur – this shall not be deemed a product defect.



Waste causing mechanical damage to the fabric or the structure shall be removed before the roof is folded.



While the canopy is being folded, residual rainwater may pour out from the fabric panels.



Shade differences between aluminum elements coming in in different batches of the product may occur.



Taking into consideration the high level of pollution which leads to acid rain, and in case the structure is installed near roads, air channels, forests, trees with a risk of resin contamination, and additionally it is not cleaned immediately after contamination, then the profiles may get dirty, making it impossible to clean them later.



In the event of heavy wind and heavy rainfall, there is a possibility that rainwater may enter between the canopy profiles and the guides, which in turn may result in a leak inside the canopy.



In the event of heavy wind and heavy rainfall, there is a possibility that rainwater may enter between the canopy profiles and the guides, which in turn may result in a leak inside the canopy.



Do not use abrasive materials to clean the structure.



It is recommended to check the condition of the canopy's fabric at least twice a year - in springtime, before the start of the summer season, and in autumn, before the awning is folded for the winter season.



It is forbidden to unfold the canopy during snowfall and hail. Failure to comply with this recommendation may damage the fabric, reduce its properties and, as a result, tear it.



Using the canopy during conditions exceeding the indicated wind standard may result in damage or destruction of the canopy.



It is forbidden to place any items or objects on the material of the structure.



The arrangement of the fabric panel where the cord is welded may differ slightly in its appearance from the part of the fabric where the cord is not welded. This, however, does not affect the appearance and functionality of the canopy.



Deviations of the profiles in relation to each other and the distance between them are permissible due to buckling of the profiles caused by temperature changes and long-term loads (for e.g. of snow) covering the profiles.



Slight water outflow may be caused by the sheathing of the structure being folded. This may occur due to dew building up in the fabric panels and its running down the fabric - this shall not be deemed a product defect.

THE MANUFACTURER SHALL NOT BE LIABLE FOR INCORRECT USE OF THE CANOPY RESULTING FROM FAILURE TO COMPLY WITH THE USE AND SAFETY REGULATIONS PROVIDED IN THIS MANUAL.

5 CERTIFICATES

Tarasola®



DECLARATION OF CONFORMITY

No. 001/2022

Przedsiębiorstwo Handlowe Tarasola Sp. z o.o. Sp.k., ul. Hugo Kołłątaja 5/2, 20-006 Lublin hereby declares that the product:

Cubic

Trademark: **Tarasola®**

It is compatible with the following provisions of implementing provisions in the scope of its regulation implementation of the directives The European Parliament and of the Council (with all the subsequent amendments and supplements):

2006/42/CE - MACHINERY DIRECTIVE
CPR/305/2011 - REGULATION OF THE CONSTRUCTION PRODUCTS

Was used harmonized standards and / or technical specifications below:

PN - EN 13561 + A1:2009 - EXTERNAL CURTEINS - REQUIREMENTS CONSUMABLES INCLUDING SAFETY.
PN - EN 1932:2013 - 09 - CURTAINS AND BLINDS EXTERNAL AND RESISTANCE TO WIND LOAD - TEST METHODS.

10.3.2022 *Gurbaev A.M.*
date and signature

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