PRODUCT ENGINEERING / TECHNICAL GUIDE

SV-T2

Portable tethered drone



Product manual · Selection and application

Specifications / Structure and interfaces / Integration / Operation and care

Reorganized from available model documentation. The agreed specification defines the delivered configuration.

01 / PRODUCT & APPLICATION

Selection and application guide

SV-T2 targets portable tethered projects. The available attachment labels the aircraft T1 and the ground station W2, with conflicting voltage descriptions. Treat its figures as legacy reference data. Establish payload mass, available power and deployment space before confirming a matched system.

Design and application value

A tethered system keeps its main power equipment on the ground and supplies the aircraft through a cable. It can support assessment of sustained lighting, observation and communications over a fixed area. The ground station, airborne power unit, backup supply, tether and reel must be matched as one system.

Choosing the right configuration

Confirm payload mass and power, station-keeping time, target height and site supply. Then assess tether mass, voltage drop and wind loading. Cable length is not usable vertical height: angle, sag, ground routing and obstacles consume length. Ground-station ratings from different versions are not interchangeable.

02 / SPECIFICATIONS 01

Specifications and configuration

Figures follow the available model documentation. The agreed specification defines the delivered configuration.

Parameter	Specification
Motor-to-motor diagonal	670 mm
Unfolded / working dimensions	740 × 740 × 400 mm
Folded / storage dimensions	430 × 430 × 400 mm
Product mass	5.6 kg
Number of motors	8
Maximum output per motor	430 W
Maximum thrust per motor	2.4 kg
Rated payload	1 kg
ESC rated voltage	24 V DC
ESC rated current	6 A
Propeller diameter × pitch	15 × 5 in
Propeller material	Carbon-fibre composite
Ground-station model	W2
Ground-station mass	18.7 kg
Ground-station dimensions	550 × 400 × 300 mm

Model and voltage require confirmation: aircraft T1, station W2, ESC 24 V, supply switch 300 V and ground output 400 V. Do not combine these entries into a wiring specification.

02 / SPECIFICATIONS 02

Specifications and configuration

Figures follow the available model documentation. The agreed specification defines the delivered configuration.

Parameter	Specification
Ground-power input	110-220 V AC, 50-60 Hz
Ground-power output voltage	400 V DC
Maximum ground-power output	3 kW
Tether length	50 m
Automatic reel speed	1 m/s
Nominal generator-powered flight duration	8 h

Model and voltage require confirmation: aircraft T1, station W2, ESC 24 V, supply switch 300 V and ground output 400 V. Do not combine these entries into a wiring specification.

05 / INTEGRATION & CARE

Installation, operation and care

Installation and integration

Before deployment, inspect connector locks, cable insulation, strain relief, cooling and protective grounding. Make connections with power isolated. Follow the fitted controller’s instructions for startup, voltage and backup power. Controlled commissioning should verify reel operation and responses to communication or primary-power loss.

Operation and maintenance

Monitor voltage, current, payout and reel behavior during operation; keep the tether clear of people and obstacles. Afterwards inspect wear, bends, connectors and abnormal heating. Return-to-home or landing behavior must suit the tethered operating envelope and be validated on the fitted system, rather than copied from free flight.

Commissioning record

01 Confirm model, configuration, software and document versions.

02 Record load, environment, supply and mission conditions.

03 Verify protective functions, stopping and abnormal-condition responses.

04 Retain key readings, photographs and inspection records; agree a maintenance plan.

06 / OPERATING BOUNDARIES

Operating boundaries and technical review

01 Operation requires trained personnel familiar with the fitted configuration. Isolate power and prevent unintended startup before servicing or connection changes.

02 This guide covers selection, structure and operating principles. Controller calibration, arming commands, LED codes and failsafe actions vary by version; use the confirmed procedure for the delivered controller. Do not infer actions from unclear symbols in a legacy scan.

03 Assess electrical, rotating-part, pinch-point and work-at-height risks for the actual site. Keep people clear of propellers, tracks, manipulators and loaded cables as applicable. Stop and inspect when abnormal conditions arise.

04 Reference range, duration, slope and productivity figures are not guarantees for every environment. Revalidate system performance and protective behavior after changing payload, power, controller or structure.

05 Product names and protection descriptions do not replace certificates. For explosive atmospheres, firefighting, aviation or special environments, confirm the applicable documentation and its match to the delivered configuration.

07 / DOCUMENT NOTES

Specification and configuration notes

01 The source lists eight hours of generator-powered flight. Actual duration depends on fuel, load, environment and operating procedures. Ground-station power and maximum output per motor are different ratings.

02 Model and voltage require confirmation: aircraft T1, station W2, ESC 24 V, supply switch 300 V and ground output 400 V. Do not combine these entries into a wiring specification.

Source and edition

Technical data have been reorganized from the available product attachment and project documentation. Originals are retained in the project archive. Layout edition: September 2026.

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Use the mutually confirmed delivery documents for purchasing, installation and acceptance. If drawings, nameplates or hardware differ from this guide, verify the applicable model and version before operation.

Business enquiries: see the next page.

Business enquiries

Product selection · Project enquiries · Technical support

SV-T2

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